Autographs
About Bank of America

One of the world’s largest financial institutions, Bank of America serves individual consumers, small- and middle-market businesses and large corporations with a full range of banking, investing, asset management and other financial and risk management products and services. The company provides unmatched convenience in the United States, with approximately 50 million consumer and small business relationships and 5,100 retail banking offices. Bank of America is among the world’s leading wealth management companies and considered a global leader in corporate and investment banking and trading, serving corporations, governments, institutions and individuals around the world. Bank of America offers industry-leading support to approximately three million small business owners through a suite of innovative, easy-to-use online products and services. The company serves clients through operations in more than 40 countries. Bank of America Corporation stock (NYSE: BAC) is listed on the New York Stock Exchange.

About the National Center for Women & Information Technology (NCWIT)

The National Center for Women & Information Technology (NCWIT) is a non-profit community of more than 600 universities, companies, non-profits, and government organizations nationwide working to increase women’s participation in computing and technology. NCWIT equips change leaders with resources for taking action in recruiting, retaining, and advancing women from K–12 and higher education through industry and entrepreneurial careers. Find out more at www.ncwit.org.

About the NCWIT Award for Aspirations in Computing

The NCWIT Award for Aspirations in Computing recognizes young women for their outstanding aptitude and interest in computing, proven leadership ability, academic performance, and plans for post-secondary education. This multi-tiered competition includes recognition at the national level (sponsored by Bank of America) and at the local level (sponsored by Microsoft), serving 50 states, the District of Columbia, Puerto Rico, and U.S. overseas military bases.

The Aspirations Award is a component of NCWIT Aspirations in Computing — a sweeping national talent development initiative for young women in computing and information technology, from kindergarten through graduate school. Find out more at www.aspirations.org.
The following institutions offer scholarships to recipients of the NCWIT Award for Aspirations in Computing:

<table>
<thead>
<tr>
<th>Arizona State University</th>
<th>Santa Clara University</th>
</tr>
</thead>
<tbody>
<tr>
<td>Boise State University</td>
<td>Scholarships for Women Studying Information Security (SWSIS)</td>
</tr>
<tr>
<td>Carnegie Mellon University</td>
<td>Seattle Central Community College</td>
</tr>
<tr>
<td>Carroll College</td>
<td>University of California - Irvine</td>
</tr>
<tr>
<td>Colorado School of Mines</td>
<td>University of California - Santa Barbara</td>
</tr>
<tr>
<td>Columbus State University</td>
<td>University of California - Santa Cruz</td>
</tr>
<tr>
<td>DePauw University</td>
<td>University of Central Arkansas</td>
</tr>
<tr>
<td>Fisk University</td>
<td>University of Colorado - Boulder</td>
</tr>
<tr>
<td>Harrison College</td>
<td>University of Massachusetts - Amherst</td>
</tr>
<tr>
<td>Indiana University Bloomington</td>
<td>University of Massachusetts - Boston</td>
</tr>
<tr>
<td>Indiana University Center of Excellence for Women in Technology</td>
<td>University of Missouri - Kansas City</td>
</tr>
<tr>
<td>Indiana University Purdue University Indianapolis</td>
<td>University of Montana Western</td>
</tr>
<tr>
<td>IUPUI The School of Engineering and Technology</td>
<td>University of Nebraska - Omaha</td>
</tr>
<tr>
<td>Michigan State University</td>
<td>University of North Texas</td>
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<tr>
<td>Missouri University of Science &amp; Technology (Missouri S&amp;T)</td>
<td>University of Notre Dame</td>
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<tr>
<td>Muskingum University</td>
<td>University of Pittsburgh</td>
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<tr>
<td>North Carolina State University</td>
<td>University of Texas - Dallas</td>
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<tr>
<td>Oregon State University</td>
<td>University of Wisconsin - Madison</td>
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<tr>
<td>Purdue University</td>
<td>Utah State University</td>
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<tr>
<td>Rose-Hulman Institute of Technology</td>
<td>Villanova University</td>
</tr>
<tr>
<td>Rutgers University</td>
<td>Virginia Tech</td>
</tr>
<tr>
<td>Saint Francis University</td>
<td>Westminster College</td>
</tr>
</tbody>
</table>
Map of Award Winners

1. Alpharetta, Georgia
2. Arlington, Texas
3. Bronx, New York
4. Brooklyn Park, Minnesota
5. Broomall, Pennsylvania
6. Brownsville, Texas
7. Centreville, Virginia
8. Charlotte, North Carolina
9. Charlotte, North Carolina
10. Cypress, California
11. Franklin Lakes, New Jersey
12. Glenwood City, Wisconsin
13. Hillsboro, Oregon
14. Huntsville, Alabama
15. Las Cruces, New Mexico
16. Longwood, Florida
17. Los Angeles, California
18. Los Lunas, New Mexico
19. Loudonville, New York
20. Marlborough, Massachusetts
21. Mason, Ohio
22. Oak Ridge, Tennessee
23. Oakland, California
24. Owings Mills, Maryland
25. Palo Alto, California
26. Pittsburgh, Pennsylvania
27. Portage, Michigan
28. Portland, Oregon
29. Redmond, Washington
30. Richmond, Virginia
31. San Juan, Puerto Rico
32. Santa Barbara, California
33. South Barrington, Illinois
34. West Jordan, Utah
35. West Lafayette, Indiana
DENISE MENELLY, MANAGING DIRECTOR, HEAD OF SHARED SERVICE OPERATIONS, BANK OF AMERICA

Denise Menelly is the Shared Service Operations executive for Global Technology and Operations. She is responsible for delivering industry leading banking solutions to retail, commercial and corporate clients in the U.S. and across more than 52 countries.

Denise’s experience spans over 30 years leading positive change in a variety of banking operations, technology and client service functions. Before joining Bank of America in 2010, Denise was the Chief Operating Officer for Royal Bank of Scotland’s Americas division and a Vice Chairman RBS’s Citizens Bank. Prior to her time at RBS, Denise spent 12 years at Citigroup, in a variety of senior roles in the Technology and Operations division supporting the Global Transactions Services (GTS) business. Earlier in her career, Denise led teams and implemented improvements at Bankers Trust Company (now part of Deutsche Bank) in the Global Corporate Banking Division.

As a champion for women in business, Denise has played a leadership role in designing and launching organizations and programs designed to help women succeed. She is currently a member of the Global Ambassador Program at Bank of America, which, in partnership with the nonprofit organization Vital Voices, provides mentorship to emerging women leaders. Denise is a board member of the National Center for Women and Information Technology and the executive sponsor for Bank of America’s Women in Technology & Operations (WIT&O) advocacy group that strives to attract, develop and retain female talent in technology and operations.

Denise lives in New York with her husband Rick and two sons, Peter and Steven.
Message from Bank of America

On behalf of Bank of America and all of our employees worldwide, I am truly honored to welcome you to Charlotte and congratulate you on your selection as a 2015 NCWIT Award for Aspirations in Computing national winner.

We are so pleased to have the opportunity to recognize such a promising group of young women. You have been selected on the strength of your computing accomplishments as well as your leadership ability, academic history, future education plans and potential to contribute to the field of information technology. You should feel very proud of this accomplishment.

At Bank of America, we believe it is essential to encourage young women to pursue careers in technology and provide them with opportunities. That’s why we work to inspire the next generation of female leaders by sponsoring programs like the NCWIT Award for Aspirations in Computing.

Bank of America has earned national recognition as an employer of choice for professional women and people of all backgrounds. We strive to create an inclusive work environment that represents a variety of different perspectives and encourages employees to find value in those differences. Working to have women fully represented on teams creating technical client solutions leads to more innovative products and services for our diverse customer base. We believe this diversity creates a competitive advantage for our business.

There is no doubt that the field of IT needs more smart, talented, educated women like you. I encourage you to continue your education in computing, pursue a career in technology, and make your mark on the field!

Congratulations and best wishes,

Denise Menelly
Shared Service Operations executive, Bank of America
Global Program Sponsor for Women in Technology and Operations
About Lucy Sanders, NCWIT

LUCY SANDERS, CEO & CO-FOUNDER

Lucy Sanders is CEO and Co-founder of the National Center for Women & Information Technology (NCWIT) and also serves as Executive-in-Residence for the ATLAS Institute at the University of Colorado at Boulder (CU).

Lucy has an extensive industry background, having worked in R&D and executive (VP) positions at AT&T Bell Labs, Lucent Bell Labs, and Avaya Labs for over 20 years, where she specialized in systems-level software and solutions (multi-media communication, and customer relationship management. In 1996, Lucy was awarded the Bell Labs Fellow Award, the highest technical accomplishment bestowed at the company, and she has six patents in the communications technology area.

Lucy serves on several high-tech startup and non-profit boards, and frequently advises young technology companies. Lucy has served on the Mathematical Sciences Research Institute (MSRI) Board of Trustees at the University of California at Berkeley, as well as on the Information Technology Research and Development Ecosystem Commission for the National Academies and the Innovation Advisory Board for the U.S. Department of Commerce.

Lucy is a recipient — along with NCWIT co-founders Robert Schnabel and Telle Whitney — of the Computing Research Association’s 2012 A. Nico Habermann Award. In 2004 she was awarded the Distinguished Alumni Award from the Department of Engineering at CU, and in 2011 she was recognized with the university’s George Norlin Distinguished Service Award. She has been inducted into the Women in Technology International (WITI) Hall of Fame and is a recipient of the 2013 U.S. News STEM Leadership Hall of Fame Award. Lucy received her BS and MS in computer science from Louisiana State University and the University of Colorado at Boulder, respectively.
Congratulations!

On behalf of the National Center for Women & Information Technology (NCWIT) community and board of directors, I want to congratulate each of you on the computing aspirations and achievements that have earned you the 2015 NCWIT Award for Aspirations in Computing. We know we will be proud of how you continue to utilize your technical skills to tackle societal challenges.

From healthcare and alternative energy to business operations and media forensics, technology increasingly saturates every aspect of our society. Yet, while girls and women are avid users of technology, they are underrepresented in its creation. We need your computing skills to ensure wide-ranging technological innovations and solutions. With 1.4 million computing-related job openings expected in the U.S. by 2022, you are in a prime position to take advantage of some of the most rewarding, highest-paying careers.

NCWIT is dedicated to increasing women’s meaningful participation in technology and computing from K-12 and higher education through industry and entrepreneurial careers. We want to support your plans for the future, wherever it may take you. Our network of 600+ member institutions and 4,600+ Award recipients are ready to provide job opportunities, technical projects, mentoring, advice, encouragement, and more.

We hope this Award will always remind you of the powerful and innovative things that you can do with technology. You are truly an inspiration to us all.

Congratulations and best wishes.

Sincerely,

Lucy Sanders, CEO & Co-founder, NCWIT
Aspirations Award Leadership

**AMMI LUDWICK, ASPIRATIONS IN COMPUTING PROGRAM DIRECTOR, NCWIT**

As the NCWIT Aspirations in Computing Program Director, Ammi Ludwick is responsible for program implementation and expansion. She works closely with the managers of the NCWIT AspireIT K-12 Outreach program, the NCWIT Collegiate Award and NCWIT Aspirations in Computing Community to increase the depth of the technology talent pool and supports the affiliate teams as they continue to broaden the reach of NCWIT’s message with the Aspirations and Educator Award. Ammi’s background is in education, volunteer management, program development, and event planning. She received her bachelor’s degree from St. Mary’s College of California and her master’s degree from Loyola University Chicago.

**AMY GURLEY, SENIOR VICE PRESIDENT, WOMEN IN TECHNOLOGY & OPERATIONS, BANK OF AMERICA**

Amy Gurley is the global program lead for Bank of America’s Women in Technology and Operations (WIT&O) advocacy group. WIT&O is a community of 18 chapters with over 3400 members in the United States, Europe and the Asia Pacific region. The WIT&O mission is to attract, develop and retain female talent in technology and operations at Bank of America. Amy has spent her career working alongside technologists to lead and sustain people-related change. With a B.S. from Wofford College and a M.A. in Industrial/Organizational Psychology from the University of Alabama, Amy spent seven years in management consulting before joining Bank of America. Over the last 14 years with the bank, she has held a variety of business support, change and program leadership roles throughout Global Technology & Operations. Amy lives in Charlotte, NC with her husband David and their two children.
CLAIRE REFAEY, SENIOR VICE PRESIDENT, GT&O VENDOR OPERATIONS, BANK OF AMERICA

Claire A. Refaey is the Vendor Operations Executive for Global Technology & Operations (GT&O) at Bank of America. She is responsible for the GT&O Third Party Initiative portfolio, as well as, shared services including the low risk vendor taskforce, Plan Phase Intake/QA, reporting and analytics. Claire Refaey is the Executive Champion for the United States early pipeline strategy within Bank of America’s Women in Technology and Operations (WIT&O) advocacy group. WIT&O’s early pipeline mission is to influence young women to pursue Science, Technology, Engineering and Mathematics (STEM) programs and consider careers in technology, and ultimately, at Bank of America. Claire earned a bachelor of arts in Supply Chain Management from Michigan State University and a Masters of Business Administration from Wake Forest University. She has traveled the globe extensively both for business and pleasure and enjoys understanding cultural nuances. Claire lives in Charlotte, N.C. with her husband and son and is an active volunteer with the ARC of Mecklenburg County.

LAUREN VON ROENN, OUTREACH COORDINATOR, NCWIT

As the Outreach Coordinator for NCWIT, Lauren Von Roenn organizes implementation plans across many NCWIT programs, events, and campaigns. She also serves as the Aspirations in Computing Educator Award Program Manager and Operations Liaison. Lauren received her BS in Business Administration and BA in Spanish Language from the University of Colorado at Boulder while also working as a student assistant at NCWIT.
Aspirations Award Leadership

**MARISSA HOFFERBER, ASPIRATIONS IN COMPUTING NATIONAL AWARD PROGRAM COORDINATOR**

Marissa Hofferber is currently transitioning into the roles of Aspirations in Computing Educator Award Program Manager and National Award Program Assistant. She also serves as NCWIT’s Operations Assistant, providing administrative support for NCWIT’s non-profit and University of Colorado finances. She graduated from the University of Colorado at Boulder with a BS in Business Administration with an emphasis in Marketing.

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**RUTHE FARMER, CHIEF STRATEGY AND GROWTH OFFICER, NCWIT**

Ruthe Farmer has focused her efforts on increasing girls’ participation in technology and engineering since 2001. At NCWIT, she provides strategic planning and direction, works on fund development and cultivation of new partnerships, and leads the NCWIT K-12 Alliance. Ruthe is dedicated to growing Aspirations in Computing into the largest talent pipeline for technical women in the United States. She served as the 2012 Chair of Computer Science Education Week, was named a Champion of Change for Technology Inclusion by the White House, received the Ulla Popken Phenomenal Woman Award for her work to increase girls’ participation in technology and engineering, and received the Anita Borg Institute Award for Social Impact.

Ruthe holds an MBA in Social Entrepreneurship from the University of Oxford Said Business School and is passionate about integrating innovative business strategies into social change efforts.
SAFIA ABDALLA, NORTHWESTERN UNIVERSITY
Safia is currently a freshman at Northwestern University pursuing a degree in Computer Science with a specialization in Artificial Intelligence. She is the Co-founder and Executive Director of Data Science for America, a non-profit that strives to connect talented data scientists with local non-profits and grassroots organizations to solve important problems in their communities and use the power of data analytics to do so more effectively. She is also the co-organizer of PyLadiesChicago, an organization that aims to empower and educate female developers who are interested in or are using the Python programming language. In her spare time, she enjoys listening to post-rock, programming, and cooking up new ways to change the world.

VANESSA PENA, UNIVERSITY OF CENTRAL FLORIDA
Vanessa, a Central Florida native, attended Lake Brantley High School before continuing her education at the University of Central Florida (UCF), where she is pursuing a bachelor’s degree in Computer Engineering. She is currently the Vice President and Treasurer for the UCF student organization Women in Electrical Engineering and Computer Science. She has participated in IBM’s Master the Mainframe competition and CyberPatriot. She has also been invited to attend conferences such as IBM Innovate, The Grace Hopper Celebration of Women in Computing, and Qualcomm’s DECA (Diversity Engineering Collegiate Alignment). In high school, she was part of the programming team and a founding member of a girl’s robotics team that worked closely with local elementary schools. She has also been interviewed for an Orlando Sentinel article, along with NCWIT’s Ruthe Farmer, about women in technology. She will be interning with Bank of America this summer and plans to pursue a master’s degree in Computer Engineering before joining the industry in a position that she hopes will both challenge her and enable her to help others.
ALEIDA OLVERA | Brownsville, Texas
Veterans Memorial High School

Aleida is a junior at Veterans Memorial High School and an aspiring graphic designer and computer programmer. Her school does not offer computer science courses, so she learned C++, Python, Objective-C, HTML, and CSS independently. She creates websites for local businesses to pay for computer science courses at her local university. She and a partner are creating a smartphone application that can secretly alert emergency contacts that the user may be in danger through the use of a Bluetooth-connected wristband, geared toward protecting college students who are away from their friends and families. She participates in the Technology Students Association (TSA), earning awards for Promotional Graphics, Software Development, Video Game Design, and Webmaster, as well as VEX Robotics. Aleida is Vice President of her local chapter and a part of the Texas TSA State Leadership Team. She is also involved in her school’s National Honor Society, Business Professionals of America, science fair, and book club. Aleida plans to major in computer science and minor in physics at the Massachusetts Institute of Technology or Stanford University.

ALICIA PURDUM | Glenwood City, Wisconsin
Homeschooled

Alicia has been studying computers and technology since she was 10 years old. In seventh grade, she taught herself Objective-C and created a fully functional iOS application; she has continued to create applications and computer programs since then. In the eighth grade, Alicia began working in robotics. She was the captain of the FIRST Robotics league in her school, and she created a functional robotic arm by herself. At the beginning of her freshman year, Alicia was runner-up for the national NCWIT award, and she won the Wisconsin award. She also began teaching a programming class to younger children and running a computer repair business called Bits and Bytes. Toward the end of freshman year Alicia began homeschooling so that she could learn at a faster pace. Now a sophomore, she is in all AP classes and is set to graduate two years early. She plans to get a bachelor’s degree in biochemistry and a master’s degree in prosthetics and orthotics at the Massachusetts Institute of Technology and then become a prosthetist.
ALKA PAI | Redmond, Washington
STEM High School

Alka Pai is a senior at Tesla-STEM High School in Redmond, Washington. Throughout high school, she has demonstrated her love for computing and technology through various leadership positions and activities. She is the Program Leader for her AspireIT organization, STEM Reach, which fosters computer science learning in middle schools across the Lake Washington School District (LWSD). In the first year of the program, there were more than 70 girls and more than half of LWSD’s middle schools involved, and she hopes to expand the program this year. She is also the Founder and President of STEM High School’s Technology Student Association chapter, and she has been working with Microsoft to develop an even more effective outreach committee within the club. This past summer she interned at Microsoft Research, working on several projects that had significant impact across multiple communities.

ANA HERNANDEZ | Los Angeles, California
Foshay Learning Center

Ana is a senior at Foshay Learning Center and a proud member of the Technology Academy. She is a captain on her school’s FIRST Robotics team and president of the MESA team. She has participated in many community service events with the team, learning programming, wiring, building, and public speaking. Ana also interned as a web designer at a local radio station, where she learned Ruby on Rails and built five applications. Ana also has a huge passion for soccer and enjoys being a part of the school’s varsity soccer team; she currently serves as a captain. Ana is active in her community and loves to take part in organizing and participating in events around Los Angeles. As a public speaker and STEM enthusiast, she hopes to spread the word that STEM is the new cool and that anyone and everyone can be involved with STEM! One of her proudest accomplishments is being a student guest speaker at Apple Inc.’s headquarters during its Diversity Week.
2015 Winners

ANGELA CHEN | Arlington, Texas
Martin High School

Angela is a senior at James Martin High School. She has taken computer science classes all four years of high school, and she is currently studying application design and development for her Computer Science IV class. Angela has competed with her school’s UIL Computer Science team for the past three years and is currently the team captain. She is also the first Vice President of Warrior Women in Technology, where she helped start a junior high outreach program that teaches girls the basics of programming using Scratch and MIT App Inventor. Angela is also involved in VEX Robotics where, as Vice President of Technology, she is currently in charge of software and programming. Angela’s programming experience landed her a paid internship at the Naval Postgraduate School the summer before her senior year. Angela plans to study computer science at university.

ASHLEY LOBERGER | Hillsboro, Oregon
Hillsboro High School

Ashley has many positive influences to thank for encouraging her interest in technology. Her parents, her older sister, and her technology teacher, Mr. Domes, have all provided support and encouragement. Ashley is most proud of running the Girls Get IT! (Innovative Technology) Camps. The Girls Get IT! program is in its fifth year and provides an opportunity for girls to experience hands-on activities in STEM, including creating their own website, making their own game with GameMaker, coding Arduino UNO boards, soldering, creating electronic jewelry, and more. Ashley also did a podcast with Girls Get IT! for the Huffington Post - Girls in STEM. In addition to running Girls Get IT!, Ashley is the team captain of a First Tech Challenge Robotics Team and mentors a young First Lego League team at a local elementary school. In her free time, she enjoys creating computer games and coding her personal website. Ashley plans to attend a university to study computer science and aeronautical engineering. She wants to continue to encourage young women into computing and STEM fields.
DANIELA MARKAZI | South Barrington, Illinois
Barrington High School

Daniela is a member of her high school’s FIRST Tech Challenge Robotics Club, which she helped found. In her role on the team’s board, she manages all teams, as well as the club’s marketing, fundraising, and inventory. Through her publicity efforts, her robotics club became the largest robotics club in the world, with nine teams. During her sophomore year, her team won the University of Wisconsin FTC State Championship. She was the only female team member. During her junior year, her team won the Illinois State Championship. Daniela mentors gifted elementary robotics club members with the guidance of a University of Chicago Computer Science professor. She also founded the FIRST Lego League Robotics Club, convincing the Parent Teacher Organization to give the school more than $8,000 to buy eight robots and to form multiple robotics teams. Daniela is the first student at her high school to take every computer science class. She has won the NCWIT Affiliate Award for Aspirations in Illinois and was a national runner-up twice.

DARARTU GAMADA | Brooklyn Park, Minnesota
Breck School

Darartu’s greatest technical accomplishment to date has been to use the Itasca supercomputer at the University of Minnesota to run 31 simulations that she had developed to determine the mechanisms by which copolymers serve as molecular bandages in sealing cardiac muscle cell membranes damaged by cardiomyopathy. This was work that sparked her interest in pursuing computational medical research as a possible career. This technical accomplishment stemmed from Darartu’s talent and achievements in math and science, including recognition by the Minnesota State Department Scholar of Distinction in STEM, as well being named a semifinalist in the national ExploraVision Competition. In addition, Darartu formed and now captains her school’s Science Bowl team and is the team captain of its Math League and Quiz Bowl teams. She is also involved in FIRST Robotics and is a co-captain on the Advanced Science Research Team.
EMILY OLEISKY | Owings Mills, Maryland
Garrison Forest School

Emily is a junior at Garrison Forest School in Owings Mills, Maryland. She has always had a deep passion for learning. In her free time, she volunteers in Sinai Hospital’s Orthopedic Oncology & Clinical Engineering Departments. This fall, Emily began working in the Neuroengineering and Bioinstrumentation Lab at Johns Hopkins University. Here she assists in the creation of an olfactory stimulation device that uses deep brain stimulation as a means for Alzheimer’s treatment. Emily is the team captain of her school’s FTC Robotics Team and founded her school’s first Computer Science Club. For the past four years, Emily has attended Northrop Grumman’s Young Scientists and Engineers Seminars. Last year she co-coordinated Hour Of Code efforts in her school and is thrilled to join the ProjectCSGIRLS Outreach Team. Through her experience with subject areas such as computer science, Emily hopes to encourage other girls to get involved with STEM fields.

GILI RUSAK | Loudonville, New York
Shaker High School

Gili is a senior at Shaker High school in Latham, New York. She has always excelled in math, and during her freshman year she became interested in computer science. She self-studied and took the AP Computer Science and scored a 5 on it, and she also scored a 5 on the AP Calculus BC exam. By completing these courses she had exhausted all math and computer science curriculum opportunities at her school, so she has been taking courses at Siena College since her sophomore year. Gili taught herself Python for a data mining research project titled, “The Properties of Twitter Network Communications Among Teenagers,” for which she has won several awards and been invited to numerous mathematics conferences to present. Gili also created an Android application called Codester, which teaches basic programming concepts and computational thinking skills. She has presented this work at several conferences as well. She has also put this application to educational use by organizing two after-school “Coding Clubs” outreach programs for students at Loudonville Elementary School.
ILONA BODNAR | Oakland, California
Piedmont High School

Ilona is a passionate coder and relentless optimist. She uses her knowledge in the field of STEM to assist others, including tutoring children with developmental and personal challenges and volunteering for various STEM organizations. Her greatest technical accomplishment has been programming a miniature pseudo-security system on the Intel Galileo Gen2. She earned a position in the Top 10 teams of AngelHack’s Silicon Valley Hackathon, is an intern for UC Berkeley’s TechHive, and works with BEAM undergraduates from UC Berkeley on engineering, bioreactor, and renewable energy projects. She is also a club ambassador for Technovation, Girls Who Code, and a #include fellow for She++. She hopes to use her knowledge of computers and science to improve the quality of life for people around her. Projects such as Google’s “Project Loon” and those that use collective intelligence for social good causes especially pique her interest. She will either major in computer science/engineering or in computational neuroscience, and she hopes that her actions will inspire girls in similar situations to pursue what they love and succeed.

JESSICA IVIE | West Jordan, Utah
Cooper Hills High School

Jessica has been working with computers since she was very young, and she has experience with processing, Java tools, assembly language, and others. Her current passion is a project in partnership with her father to create an electronics kit and curriculum to teach beginning engineering and programming skills to kids. Her kit has been tested by kids in 4-H clubs, scout groups, fifth-grade classrooms, after-school groups, and at public conferences such as 4-H Leadermete, Utah Code Camp, Mini Maker Faire, OpenWest Conference, Hour of Code, and Family DevFest. Jessica is preparing to release her kit and curriculum for wider distribution next month. She especially enjoys teaching younger girls how to program, and she spends a lot of time volunteering through 4-H.
2015 Winners

JESSICA (YIYUE) Xiang | Mason, Ohio
William Mason High School

Jessica is a senior at William Mason High School. She is a member of her school’s Science Olympiad Team, Math Team, National Honor Society, Spanish National Honor Society, and President of the Science National Honor Society. Outside of school, she is a member of the Leadership Council for the INTERAlliance of Greater Cincinnati, a non-profit organization that tries to connect high school students with IT opportunities in the Cincinnati area. She also volunteers at Bethesda North Hospital, is a piano teacher with three students, and enjoys playing piano herself in her free time. The summer after her junior year, Jessica interned at GE Aviation, where she joined the Systems ERP team and learned all about Oracle ERP. Jessica tries to share her passion for computer science by organizing camps and after-school enrichment programs that teach programming to younger students. Last summer, she planned a week-long summer camp called Introduction to Computing with her sister Sara. Jessica plans to major in computer science in college.

Joy Hsu | Cypress, California
Oxford Academy

Joy is a junior who one day hopes to found her own technology enterprise. She pursues computer science passionately, and she is fluent in the programming languages of Java, C++, and Objective C; database management of MySQL/SQL; and Unity3D game design. Joy has received the AP Scholar with Distinction and STEM Honorary Member awards. She is the FIRST Robotics Competition Technology Director, as well as the VEX Competition Computing Lead. In addition to improving her own coding she also teaches other students how to program, as a paid teacher at Mobile End Zone Academy and through her role as the Director of Technology for STEM. Additionally, Joy has focused on building business and leadership skills by obtaining a marketing internship at CardBlanc, starting a branch of Operation Smile in the district, and becoming the founder of a non-profit organization called All You Need is One. She has also created multiple iOS apps with hundreds of downloads from more than 30 countries. Joy hopes to dual major in computer science and business management.
2015 Winners

KATHLEEN D’SOUZA | Portage, Michigan
Kalamazoo Area Math and Science Center

Kathleen is a senior at the Kalamazoo Area Math and Science Center and Portage Northern High School. Her acceptance into the math and science center opened up more possibilities to further her interests in technology. As a freshman, she took a course in IT and learned graphic programming with applications such as Scratch. She learned to program in C++, HTML, Java, and is currently learning Python. She has competed in the American Computer Science League competitions. In the summer, she attended the Women in Computer Science camp and the Engineering Scholars Program at Michigan Tech. She is open to other forms of computing, and learning new languages, and has worked on IBM’s Master the Mainframe competition. Last year, she was a Michigan affiliate winner, and since then she has participated in opportunities hosted by NCWIT, such as the Jean Sammet scrapbook project and essay-writing competition. Kathleen loves that solving problems with code seems more like a game than work. She hopes to pursue a career that combines neuroscience and computer science.

KIANA DYSON | Bronx, New York
Bronx High School of Science

Kiana’s greatest technical accomplishment was building her first robot. She joined her school’s robotics team freshman year and was instantly hooked. At the time she didn’t know much about robots, engineering, or computer science, but that didn’t stop her. It amazed her how something so complicated — the building of a robot — could be broken down into much smaller steps and completed by a bunch of high schoolers in six weeks. Kiana plans to major in computer science and eventually found her own startup. She has always been interested in the idea of mixing the arts with computer science. She would love to explore the idea of making music and art through the use of computer science. One of her primary goals is to give kids the opportunity to learn about engineering and computer science at a much younger age than when she first started learning.
LAAN YEUNG | West Lafayette, Indiana
West Lafayette Junior/Senior High School

Laan (Rainbow) Yeung is a senior in West Lafayette Junior/Senior High School (WLHS) in Indiana, and a non-degree dual-enrollment student in Purdue University. She is one of the program leaders for the AspireIT program in West Lafayette, teaching middle school girls about computer science and IT during weekly meetings after school. She was also involved in WLHS’s FRC Robotics team and Zero Robotics team. Additionally, Rainbow is the student body president of WLHS, a member of West Lafayette Education Foundation Board, and WLHS’s Mu Alpha Theta chapter president. Her accomplishments include qualifying for the iGEM international Jamboree, making it to the semifinals of the Siemens Competition, and winning several science fair awards. Rainbow would like to double major in bioengineering and computer science during her undergraduate years, continue her studies in protein engineering, and continue hosting AspireIT programs and promoting IT to the next generation. She aspires to be a bioengineer. In her free time, Rainbow likes to create art, play piano, appreciate literature, and write poetry and fiction.

LAUREN COOK | Charlotte, North Carolina
Phillip O. Berry Academy of Technology

Lauren is a senior at the Information Technology magnet at Phillip O. Berry Academy of Technology. During her freshman year she became a member of the STEM Scholars club, and she continued with that the following year. She was awarded an internship at the SAS Institute’s Charlotte training office the summer before her junior year. In 2014 she won the NCWIT Affiliate Award for Aspirations in Computing in North Carolina. This achievement enabled her to get an internship in the Card Issuance Department at Bank of America that summer. She currently serves as the co-president of the SAS Club, Secretary of FBLA, and Assistant Community Service Director of the National Honor Society. She is also a member of the National Technical Honor Society NABT Bioclub and her school’s Verizon App Challenge team. Lauren has been invited to present her team’s SAS project at the SAS Global Conference in April 2015 in Dallas, Texas. She plans to attend North Carolina State University and major in computer science, and then to obtain her master’s degree and pursue computer programming.
Maria is a junior at Santa Barbara High School. She recently participated in Startup Weekend Santa Barbara and created an Arduino-controlled light-up bike helmet to increase safety. Her team won third place overall and Best Physical Product. Maria and her team plan to build a second prototype for further market validation. Maria is a Co-Founder of Dream It, Code It, a program funded by NCWIT AspireIT. Through Dream It Code It, Maria ran a two-week summer camp teaching middle school girls how to code. The camp was very well received, and she plans to run a similar class starting in January. She is on the board of her high school’s robotics team, which has won numerous prizes in the BotBall and Vex Robotics Competitions. Maria took AP Computer Science last year, and is currently taking iOS programming. Next semester she plans to take an Assembly Language class at her local city college. When Maria isn’t coding, she enjoys playing cello in the Santa Barbara Youth Symphony Orchestra, as well as lacrosse.

Mary is a sophomore at Lake Brantley High School. She is very interested in computer science and plans to pursue a career in the field. Her father inspired her to learn about computer science by teaching her Python in seventh grade. She worked with her father and her sister on simple robotic projects using Lego Mindstorm. She has participated in the IBM Master the Mainframe contest in high school, as well as computer science competitions such as picoCTF and HSCTF. She also participated in a coding competition hosted by Stetson University, and in a three-week computer science summer program at the University of Central Florida. During this program, she wrote a simple game using Python and learned some more advanced algorithms. She will be participating in the science fair at her high school this year. Working on a two-person team, she made a physics simulator in Python. She took AP Computer Science her freshman year and is currently taking a computer science principles course. She hopes to attend college and major in computer science.
2015 Winners

MEGAN CHARITY | Richmond, Virginia
Deep Run High School

Megan is a 16-year-old female game designer and programmer. She attends Deep Run High School in Richmond, Virginia, and is currently enrolled in the Center for Information Technology there. Megan is a lead programmer on her high school’s robotics team “Blue Cheese 1086,” the Center’s Historian, a member of the Center’s Student Council, and a junior varsity captain for her school’s Cyber Patriot team. Since seventh grade, Megan has made 22 games. She is fluent in the programming languages of C++, JavaScript, AS3, RobotC, and Java. Megan hopes to major in game design and programming and attend the Massachusetts Institute of Technology or Stanford University.

MEGHANA GUDUR | Alpharetta, Georgia
Woodward Academy

Meghana is a senior at Woodward Academy. Meghana is most proud of her accomplishments in community outreach through computing. She continues to engage in her community using technology by professionally coding and designing websites for small businesses and non-profit organizations. Through her program US-Be Engineers at the Jesse Draper Boys and Girls Club, Meghana has introduced computing concepts and robotics to middle school girls who have never had exposure in these fields. By working with them, she aspires to help obliterate the gender gap by changing the face of the computer science and engineering workforce. Meghana also has two years of experience conducting independent research in a college bioinformatics laboratory. By studying genomic sequences and writing algorithms to find polymorphisms, she hopes to develop a more personalized approach in medicine, one that uses a patient’s genomic sequences and a predictive healthcare model to minimize potential health problems.
NATALIA PACHECO | San Juan, Puerto Rico
University High School

Natalia is a technologically and mathematically engaged high school junior. After taking a computer science class at the University of Puerto Rico (UPR) during her sophomore year, she began working with her professor, Dr. Patricia Ordoñez, at her UPR-based lab, on a research project to develop a speech-driven programming platform for people with motor disabilities using open source software. She started taking math courses at the University in ninth grade and is currently studying Calculus III. She represented Puerto Rico and was awarded in international math competitions such as IMO and IberoAmerican, as well as in the Vex Robotics World Championship 2014. She also plays piano, dances flamenco, and studies Mandarin Chinese. She hopes to double major in computer science and mathematics, to work as a researcher on topics such as artificial intelligence and computational linguistics, and to develop computer graphics and mathematical applications.

NATALIE REED | Marlborough, Massachusetts
Advanced Math and Science Academy Charter School

Natalie is a high honors student in her junior year of high school. Her first exposure to computer science was in sixth grade, and she has since fallen in love with the field. She has had two internships — one at Mobiquity, a company that creates mobile solutions for corporations, and the other at Geisel Software, a startup that specializes in web, mobile, and embedded development solutions for its clients. She is one of the founding members of the MassCAN CS Sparks, a government-sponsored non-profit comprising middle school and high school students that aims to inspire K-12 students in the world of technology. She is the CS Sparks Communications Director and has run Kodu, TouchDevelop, Finch, Cricket, Alice, MIT App Inventor, Code.org, and PencilCode workshops at the Microsoft Center, libraries, and schools throughout the state, and the MIT App Inventor for the Girl Scouts “Geek is Glam” event. She has not decided what specific area of computer science she would like to study, but she knows she would like to be in the field.
2015 Winners

PAIGE TORRES | Los Lunas, New Mexico
School of Dreams Academy

Paige is a junior at the School of Dreams Academy in Los Lunas, New Mexico. Her interest in computing and engineering began in junior high with her involvement in Science Olympiad. Her team received fourth place in the regional competition and qualified to compete in state finals. Paige strives to partake in as many robotics competitions as she can, with the goal of gaining more experience in engineering and computing. She is currently a dual-credit student at the University of New Mexico, and she is on track to graduate from high school with her associate degree in General Science. She also volunteers with elementary-school students, teaching them to work with robots and program in C. Outside of school Paige enjoys cheerleading, dance, acting, and being involved in her church youth group. She aspires to use her problem-solving abilities to solve world problems. As Rosa Parks said, “I have learned over the years that when one’s mind is made up, this diminishes fear; knowing what must be done does away with fear.”

PATRICIA BEEKMAN | Charlotte, North Carolina
North Carolina School of Science and Math

Patricia is a junior at the North Carolina School of Science and Mathematics in Durham, North Carolina. She has always had a strong desire to learn and see how things work. This interest has led Patricia to take advanced courses in computer science and engineering. For the past three years, Patricia has been involved as a student in FIRST Robotics. Through FIRST, Patricia has gained skills in programming, mechanical engineering, public speaking, and leadership. Patricia has contributed to her community through extensive volunteer work including volunteering at local STEM education programs, robotics demonstrations, and through her work on her Girl Scout Gold Award project, which aims to introduce engineering education into middle school science programs. Patricia hopes to continue developing her skills and interests by pursuing an education and career path in either engineering or computer science.
PATRICIA EDOU | Oak Ridge, Tennessee
Oak Ridge High School

Patricia is a Gabonese-American senior at Oak Ridge High School. Patricia became fascinated with flight when her family traveled between Central Africa and the United States. She has been developing her STEM skills in order to understand the mechanics of flights so she can work in the field of aviation. She is interested in the interconnections among physics, engineering, robotics, mathematics, and computer science. Patricia was a member of an alliance that won the Smoky Mountain Regionals FIRST Robotics championship and was a part of the team that won the Excellence in Engineering award. Students had to build and program robots according to strict technical specifications. She also volunteered at a robotics camp, at which she helped middle school students program and build robots. Patricia has studied programming in a Principles of Engineering class and is currently in an AP Computer Science class at her high school. Patricia plans to attend an aeronautical university and combine her interests in aviation, engineering, and computer science to build and program air and spacecraft.

SARAH DARROW | Huntsville, Alabama
Huntsville High School

Sarah has been on a FIRST Robotics team for the past eight years and is now the programming lead. Her team has been very successful and has advanced to the world championship for the past three years. Sarah has mentored many other elementary, middle school, and high school robotics teams in her city and state, and in countries such as Saudi Arabia and Australia. She has partnered with the U.S. Space and Rocket Center in Huntsville, Alabama, to teach programming classes to robotics team coaches. Because her robotics team was not associated with her school, she helped to start a robotics club so that more students could share her experiences with technology. In addition to building and programming robots, she has worked on developing a robotic arm for a quadriplegic man.
SHARON CHEN | Palo Alto, California
Henry M. Gunn High School
Sharon, a senior at Henry M. Gunn High School, took two programming courses during her freshman year that drew on traditional UC Berkeley Computer Science course material. She later went on to self-study for the AP Computer Science Exam. One of her greatest technical accomplishments was developing a mobile application called Tall Tree Teens, a civic-engagement Android application that uses PHP, XML, Java, JSON, and her own data server. She led the application development within Girls Tech Club at Gunn High School, of which she is President. This technology encourages a more representative, innovative, and inclusive community. In the future, she would love to be a principal investigator at a university laboratory, professor at a community college, CEO of a technical company, dean of an engineering school, or founder and head of an exceptionally influential startup. She will first pursue advanced computing degrees at an institute for higher learning. She is interested in application development, artificial intelligence, cyber security, information science, mathematical computation, linguistics, biophysics, electronics, and nanotechnology.

SONIA APPASAMY | Pittsburgh, Pennsylvania
Fox Chapel Area High School
Sonia has been interested in technology and computer science since she received her first LEGO Mindstorms kit. In the summer before her freshman year of high school, she took a computer science course as part of the John Hopkins Center For Talented Youth program. She can program in BASIC, Java, and C#. Sonia is in her fourth year on FIRST (FRC) Robotics team 3504, the Girls of Steel, an all-girls team in the Pittsburgh area. Sonia has also taken AP Computer Science. She has participated in the Pennsylvania Junior Academy of Science (PJAS) since seventh grade, and in the Pittsburgh Regional Science and Engineering Fair (PRSEF) since eighth grade. Her sophomore year project was to create an application for Windows computers that translates American Sign Language to allow a deaf user to communicate with someone who does not know sign language. She is the CTO and co-founder of JUBO, a startup created at the Launch Summer Program at the Massachusetts Institute of Technology. Sonia wants to major in computer science or computer engineering in college.
SOPHIA SÁNCHEZ-MAES | Las Cruces, New Mexico
Mayfield High School
Sophia is a senior at Mayfield High School. She takes coursework in higher mathematics at New Mexico State University (NMSU), and she has studied elements of number theory and cyber security at Brown University. She can program in Java, HTML, and Python. She won Best Overall App in the 2012 YWIC summer app challenge for her Android application, the conservation calculator. She's worked at the University of New Mexico Center for High Technology Materials, creating programs to optimize the responsivity of avalanche photodiodes. She actively participates on FIRST Robotics team 1164, as well as the NM Supercomputing Challenge, Chemistry Olympiad, the Harvard-MIT math tournament, and MESA, for which she has won numerous awards. She has also participated in Science Olympiad, Science Bowl, and Innoventure, as well as the Young Women in Computing program at NMSU. Sophia mentors an all-girl FLL robotics team in order to help younger girls get excited about computer science. She plans to obtain a doctoral degree and pursue research as a career.

SOPHIE FISHER | Broomall, Pennsylvania
Agnes Irwin School
Sophie Fisher is a junior at the Agnes Irwin School in southeastern Pennsylvania. She is interested in computer programming and mathematics, particularly their visual applications. Sophie is an active member of her school’s FIRST Robotics team, and is designing and programming a robot through CAD software and LabVIEW. In addition, Sophie is the founder and co-head of the school’s STEM club. Through this club she also promotes STEM to a broader community by mentoring the local elementary school’s math club and robotics team on a weekly basis. In order to document the initiatives of STEM club and her scientific interests in general, Sophie helps run an educational blog, which can be viewed at stemulation.wordpress.com. She also spends her summers at math camp. Sophie sees herself attending a college on the East Coast and pursuing a double major in computer science and electrical engineering. After college, she would like to work as a software engineer at her own startup company and be a part-time mathematical sculptor.
2015 Winners

**STEPHANIE BATARSEH** | Franklin Lakes, New Jersey
Bergen County Academies

Stephanie’s proudest academic accomplishments are the A’s she earned in her Java, AP Computer Science, Mechatronics, and Medical Robotics classes and being named third in the state of New Jersey in the Skills USA Web Design competition. As an extension of the skills she acquired in these classes and competition, she started the Computer Science Club at her school. At the beginning, there were only a few male members; however, it soon expanded to female members who became enthusiastic to learn Java, Python, and HTML. Stephanie’s main goal for this club was to prove that computer science can be not only rewarding and useful, but also extremely enjoyable. In addition, Stephanie has brought her computer skills to the medical field. On Saturday mornings she volunteers at a nursing home, programming and playing computer games such as hangman with the residents and helping set up Skype calls with their grandchildren. Her future goal is to utilize her computer skills in the medical field and to be a positive role model for younger girls who desire to study computers.

**VALERIE CHEN** | Centreville, Virginia
Thomas Jefferson High School for Science and Technology

Valerie, a junior at Thomas Jefferson High School for Science Technology, is a computer science enthusiast. Passionate about her work, she won first place in a national STEM-based competition, eCybermission, and then moved on to become a finalist in Conrad’s Spirit of Innovation competition by putting her programming skills to work. This summer she interned at the Naval Research Laboratory, continuing her passions in computer science. Valerie plans to major in computer science in college and code in her spare time. Specifically, she enjoys studying artificial intelligence and machine learning.
VALERIE DING | Portland, Oregon
Catlin Gabel School

Valerie has taken college-level computer science and statistics classes in high school and looks to apply her computing and data-analysis skills to advance socially impactful movements such as energy technologies and sustainability. She has also had internships at Intel and the Massachusetts Institute of Technology. Valerie was a Top 15 Global Finalist in the 2013 Google Science Fair, a 2014 Davidson Fellow, International Prize Winner of the 2014 First Step to Nobel Prize in Physics, and a three-time finalist and six-time award recipient at the Intel International Science & Engineering Fair between 2012 and 2014. She is a national advocate for girls in STEM, collaborating with Sweety High as National STEM Representative and serving as Director of the Student Board for the National Gallery of America’s Young Inventors. She has been recognized for her STEM education advocacy by the White House Office of Science & Technology Policy (OSTP) and the U.S. Congress. Valerie intends to pursue research and innovation in engineering and the physical sciences in college and beyond.