

# DR. ABIGAIL JOSEPH

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## PROFILE

- Life-long learner continuously exploring new technologies and innovations.
- Artist and designer utilizing design talents to innovate and make change.
- Committed to the future of education by developing healthy, creative, inspired teachers that take action.

## SKILLS

- Successful designer of course curriculum and professional learning experiences for children and adults
- Experience with a variety of education technology software tools, prototyping tools, and cloud computing applications
- Ability to work with several operating systems, including Windows, Mac OS X, and Linux
- Proficient use of Google and Microsoft Office suites
- Mastery of numerous programming languages including JavaScript, Java, C/C++

## EDUCATION

**Ph.D. Computer Science (2002)**

**UNIVERSITY OF CALIFORNIA – SANTA CRUZ**

**M.S. Computer Science (1998)**

**UNIVERSITY OF CALIFORNIA – SANTA CRUZ**

**B.S.E Computer Science (1995)**

**PRINCETON UNIVERSITY**

**Professional Learning**

Certified Agile Leader for K-12, CSTA, National Association for Independent Schools (NAIS), NAIS People of Color Conference, Krause Center for Innovation Underground Makerspace, EDCamp, EDCampMake, EdSurge, CUE, ISTE, IEEE, ACM, Klingenstein Summer Institute Fellow (Leadership development for independent school teachers), On The Verge (Leadership development for young leaders in the non-profit sector).

## LONG-TERM EXPERIENCE

**The Harker School**  
2018 – present

### **MIDDLE SCHOOL DIRECTOR OF LEARNING, INNOVATION, & DESIGN**

Evaluate, select, review, implement curricular components requiring the use of creative and innovative learning strategies. Assist faculty in developing innovation enhanced learning opportunities through staff development and one-on-one coaching and management of a makerspace. Support and guide appropriate and relevant technology and digital literacy policies and for student and faculty use in collaboration with administration, counselors, and librarians. Coordinate the 8th-grade Discovery X program, a year-long learning journey. Actively develop, support, and participate in school initiatives focused on innovation and diversity, equity, and inclusion.

**The Nueva School**  
2014 – 2017

### **PK-12 COMPUTER SCIENCE TEACHER**

Taught Computer Science and elective classes with a focus on grades 3 – 8. Worked with the members of the Innovation Lab (I-Lab) team to develop a scope and sequence for a school-wide computer science program in its developmental years. Developed a Design Thinking centered Computer Science curriculum integrated with core academic classes such as math, science, and humanities. Co-managed lunchtime I-Lab recess and after school computer science club. Served as a student advisor, co-faculty advisor to MS Social Justice Club and US Diversity Club, active participant of the Community Diversity Committee, and student and teacher coach.

**The Harker School**  
2011 – 2014

### **MIDDLE SCHOOL COMPUTER SCIENCE TEACHER**

Critical in transitioning middle school Computer Science curriculum with technology core to a computer programming centered curriculum. Taught and developed 6<sup>th</sup> grade CS curriculum centered on game design and design thinking. Taught and developed 8<sup>th</sup> grade CS curriculum focused on developing applications blending critical and systems thinking concepts. Worked with the Director of Global Programs to integrate global education programs and information exchanges with sister schools in Japan (6<sup>th</sup> grade) and China (8<sup>th</sup> grade) into the CS curriculum. Traveled to China as an exchange teacher. Served as a student advisor, advisor of Maker Club, a member of the Diversity Committee, a member of What's Next Committee, and a participant of the Harker Mini-Merit Program run by the Krause Center for Innovation.

**St. Simon School**  
2009 – 2011

### **TECHNOLOGY COORDINATOR**

Served as the technology resource to the K-8 school community and parish staff. Delivered computer instruction to K-5 students. Facilitated the school technology integration effort in promoting 21st century teaching and learning skills, while transitioning from dedicated computer lab instruction to an integrated technology model. Modeled and created support strategies to help teachers improve efficacy and independence in classroom technology use and integration opportunities. Provided staff with desktop support and assistance with basic troubleshooting. Disseminated information regarding technology resources, emerging technologies, best practices using technology through professional development.

## LONG-TERM EXPERIENCE

**Prospect Sierra School**  
2008 - 2009

### **DIRECTORY OF ACADEMIC TECHNOLOGY**

Achieved technology innovation through leadership and mentoring faculty in the planning, use, and evaluation of technology in their classrooms. Influenced various constituents to realize the school's goals for Library Technology integration across disciplines to enhance and customize student learning. Coached and assisted faculty members by coordinating, developing, and organizing programs to inform faculty on trends in instructional technology, methods for effective use of technology in teaching, and use of specialized tools. Ensured technical competency of students by assisting teachers in design, integration, and evaluation of instructional technologies with curriculum and providing direct instruction of students and teachers on the use of computer applications. Developed and maintained Library and Information Media website with Librarians.

**Prospect Sierra School**  
2005 - 2008

### **MIDDLE SCHOOL TECHNOLOGY TEACHER**

Taught and evaluated middle school technology students. Set student technology goals and ensured competency and individual accountability. Provided one-on-one, "just in time" training and support for technology users in the school. Participated in technology team and grade level team meetings for curriculum planning. Assisted teachers in the design, integration, and evaluation of instructional technologies with curriculum.

## CONTRACT EXPERIENCE

**San Jose State University**  
Summer 2020  
Summer 2021

### **COMPUTER SCIENCE SEMINAR INSTRUCTOR**

Designed and delivered a computer science seminar for 30 pre-service and local teachers enrolled in the STEM+C Summer Institute. The seminar was designed for students to begin the process of envisioning themselves as computer science educators that are empowered to introduce computer science concepts into any classroom discipline in the K-12 education landscape.

**No Starch Press**  
2018 - 2019

### **TECHNICAL REVIEWER & LESSON PLAN WRITER**

Reviewed the technical content of the Learn to Program with App Inventor book released by No Starch Press. Contracted by author to create supplemental lesson plans for teachers that correspond with book.

**Castilleja School**  
2017 - 2018

### **COMPUTER SCIENCE & ENGINEERING FACULTY**

Part-time instructor of computer science with a focus on middle school students. Instruct mandatory 6<sup>th</sup> grade elective on Javascript. Design and deliver elective courses on web design and mobile app development. Assist with integrated computer science projects in middle and upper school.

## CONTRACT EXPERIENCE

<b>Krause Center for Innovation</b> Summer 2018	<b>YOUTH DESIGN CAMP INSTRUCTOR</b> Design and run a two 1-week design camps for youth teaching design thinking in combination with learning and using makerspace tools (3D printer, lasercutter, vinyl cutter).
<b>Krause Center for Innovation</b> Summers 2016, 2017, 2018	<b>COMPUTER SCIENCE CRASH COURSE FOR TEACHERS INSTRUCTOR</b> In collaboration with other Bay Area Computer Science teachers, design and deliver a 5-day Professional Learning program that helps elementary, middle and early high school teachers in all subject areas gain computer science content knowledge and strengthen their coding skills.
<b>The Nueva School</b> Summers 2015, 2017, 2018	<b>DESIGN THINKING INSTITUTE COACH</b> Coach a group of 8-10 teachers/administrators through a 4-day design thinking learning experience. Assistant teachers/administrators to develop design thinking plans or projects that they take back to implement at their schools.
<b>Massachusetts Institute of Technology</b> 2014 - 2017	<b>VERIZON APP CHALLENGE MASTER TRAINER</b> Trained and coached a middle or high school team that was the Best in Nation winners of the Verizon Innovative Learning app challenge. Delivered a 2-day onsite training and virtually coached a team over 4 months to develop their app idea using App Inventor.

## VOLUNTEERISM, TRAINING, AND LEADERSHIP DEVELOPMENT

<b>Computer Science Teachers Association (CSTA)</b> 2020 - present	<b>CSTA BOARD MEMBER</b> Serve as an appointed board member with a lens of equity and diversity for the organization.
<b>Computer Science Teachers Association (CSTA)</b> 2020 - present	<b>CO-CHAIR CSTA PD COMMITTEE MEMBER</b> Serve as co-chair of a committee charged to independently curate and display quality professional learning opportunities and make it easy for K-12 computer science teachers to identify relevant opportunities. The committee works to improve the rubric, process, and display; research and report on trends among current opportunities; and provide guidance for and community among PD providers.
<b>Computer Science Teachers Association (CSTA)</b> 2019 - 2020 Inaugural Cohort	<b>CSTA EQUITY FELLOW</b> Selected as part of a cohort of ten teachers focused to participate in a year-long program that elevates educators who have demonstrated success in disrupting the disparities impacting females, underrepresented students of color, English language learners, and students with special needs in order to bring their inclusive teaching practices and leadership to educators across the country and around the world at the 2020 CSTA Annual Conference.

## **VOLUNTEERISM, TRAINING, AND LEADERSHIP DEVELOPMENT**

<b>City of East Palo Alto</b> 2017 - present	<b>MEMBER OF THE EAST PALO ALTO CAREER CENTER TECHNICAL ADVISORY COMMITTEE</b>  Providing independent advice and judgment on strategic issues pertaining to the development of the East Palo Alto Career Center.
<b>edstoria</b> 2017 - present	<b>EDUCATOR WITH IDEAS</b>  Investigating and incubating ideas for an education venture that delivers professional learning experiences for teachers to help them develop sustainable teaching practices.
<b>Visionary Business Mastery</b> 2018	<b>PROGRAM PARTICIPANT</b>  Participating in a yearlong program focused on turning profound service into a viable business. Learning to develop a business through hands-on experience and coaching.
<b>San Mateo County CSTA Chapter</b> 2015 - present	<b>FOUNDING MEMBER</b>  Collaborated with local computer science teachers to develop and plan meetings for a local chapter of the CSTA in San Mateo County.
<b>Massachusetts Institute of Technology</b> 2014 - present	<b>APP INVENTOR MASTER TRAINER</b>  Initially trained as an instructor and now continuously learning the App Inventor platform to help teach students and teachers learn how to develop mobile applications.
<b>Black Girls Code</b> 2013 - 2015	<b>TECHNICAL LEAD/CURRICULUM DEVELOPER</b>  Developed curriculum and delivered mobile app and web design workshops. Trained chapter technical leads and volunteers to deliver and support workshops.

## **PRESENTATIONS**

**Blogger**, Education, Technology, Computer Science, Digital Storytelling, Photography

**Session Presenter**, "Get Agile with Creative Computing" **CSTA: CULTIVATING A COMMUNITY OF LEARNERS SUMMIT**, Virtual 2021

**Session Presenter**, "CS is Political: Blending poetry, CT, and social impact" **CSTA ANNUAL CONFERENCE**, Virtual 2021

**Session Co-Presenter**, "Tricky Situations: How would you respond to different biased statements?", **CSTA ANNUAL CONFERENCE & CHAPTER LEADERSHIP SUMMIT**, Virtual 2021

**Keynote Presentation**, "Just Begin: A Design Thinking Journey at the Harker School", **NUEVA DESIGN THINKING INSTITUTE**, Virtual 2021

**Co-Presenter**, "A Tale of Two CSTA Equity Fellows", **CSTA SAN MATEO COUNTY CHAPTER MEETING**, Virtual 2021

## **PRESENTATIONS**

**Keynote Presentation**, "Micro:bit + X", **CS FOR CA TEACHER HACKATHON**, Virtual 2020

**Session Presenter**, "CS+X: Using Computer Science to Connect Your Classroom to the(ir) World", **CSTA EQUITY IN ACTION SUMMIT**, Virtual 2021

**Session Co-Presenter**, "Complimentary Origins Towards Demystifying Computer Science for Non-CS Teachers", **CA STEAM SYMPOSIUM**, Virtual 2020

**Workshop Presenter**, "Computer Science as Creative Practice and Play" **MN CODES VIRTUAL SUMMIT**, Virtual 2020

**Workshop Presenter**, "A Play Then Teach Approach to Computer Science in the Classroom" **SJSU LURIE COLLEGE K-12 ONLINE TEACHING ACADEMY**, Virtual 2020

**Workshop Presenter**, "If They Play, They Will Learn" **MAKER EDUCATOR CONVENING**, Virtual 2020

**Workshop Presenter**, "Equitable & Social- Emotional Learning in Virtual Instruction (Middle School)" **CSTA VIRTUAL TEACHING SUMMIT**, Virtual 2020

**Workshop Presenter**, "Designing Equity-Focused Professional Development" **CSTA ANNUAL CONFERENCE**, Virtual 2020

**Ignite Talk**, "Every Teacher is a Maker" **MAKER EDUCATOR CONVENING**, San Francisco, CA 2019

**Activity Facilitator**, "Making Collaborative Art", **PENINSULA SOUTH BAY MAKER EDUCATORS MEETUP**, Los Altos, CA 2019

**Speaker**, "Pathways to Makerspace Teaching", **KRAUSE CENTER OF INNOVATION MAKERSPACE UNIDIVERSITY**, Mountain View, CA 2018

**PD Provider**, "CS Crash Course", **INFOSYS PATHFINDERS INSTITUTE**, Bloomington, IN 2018

**Presenter**, "Fostering an Inclusive Computing Culture", **SAN MATEO COUNTY COMPUTER SCIENCE TEACHERS ASSOCIATION MEETING**, Burlingame, CA 2017

**Guest Speaker**, "Pipelines", **APP INVENTOR WORKSHOP FOR MIDDLE SCHOOL GIRLS**, Santa Clara, CA 2017

**Workshop Presenter**, "5<sup>th</sup> Grade Design Engineering and Computer Science", **NUEVA DESIGN THINKING INSTITUTE**, San Mateo, CA 2017

**Booth Docent**, The Nueva School, **MAKER FAIRE**, San Mateo, CA, 2015, 2016, 2017

**Workshop Presenter**, "Tell Your Story" **MAKER EDUCATOR CONVENING**, San Francisco, CA 2018

**Workshop Presenter**, "Hooking Students into Website Creation", **NUEVA INNOVATIVE LEARNING CONFERENCE**, Hillsborough, CA, 2015

## **PRESENTATIONS**

**Workshop Presenter**, "The Power of Portfolios: Empowering Independent Learners", **NUEVA INNOVATIVE LEARNING CONFERENCE**, Hillsborough, CA, 2015

**Workshop Presenter**, "Black Girls Code: Build a Mobile App in a Day", **NATIONAL SOCIETY OF BLACK ENGINEERS NATIONAL CONFERENCE**, Nashville, TN 2014

**Showcase Presenter**, "Game Design with an Educational Endgame", **ISTE (INTERNATIONAL SOCIETY FOR TECHNOLOGY IN EDUCATION) SIGGS (SPECIAL INTEREST GROUP GAMES 7 SIMULATIONS) ARCADE**, San Diego, CA, 2012

**Session Leader**, "Building Community Through Digital Storytelling", **CALIFORNIA ASSOCIATION OF INDEPENDENT SCHOOLS NORTHERN REGIONAL MEETING**, Oakland, CA, 2009

**Session Leader**, "6<sup>th</sup> Grade Anti-Bias Orientation" **NATIONAL ASSOCIATION OF INDEPENDENT SCHOOLS PEOPLE OF COLOR CONFERENCE**, New Orleans, LA, 2008

**Panelist**, "Increasing Diversity: Academic and Corporate Responsibility", **LEADING CHANGE IN SCIENCE AND TECHNOLOGY: A PRINCETON ENGINEERING CONFERENCE FOR BLACK ALUMNI**, Princeton, NJ, 2007