

Elizabeth Biddlecome

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<https://github.com/EBiddlecome>

Skills Include: Software Development and Design, Javascript, NodeJS, HTML, CSS, React, Angular, SQL, MongoDB, Version Control, Test Integration, UNIX/Linux, Arduino, VMs, Python, AWS, Docker/Vagrant, Penetration Testing, Web Application Security, Project Management, Teaching and Technical Instruction

Lead Instructor, Mission High School and Microsoft | Mission Bit | San Francisco, CA | 2016 - present
Working to remedy the digital divide via computer science education for economically marginalized and underrepresented minority youths in San Francisco.

- Lead instructor, developer, and corporate relations representative for MissionBit's first class for young adults, a full time summer career preparation and engineering class at Microsoft
- Teach computer science, soft skills, web and game development to public high school students
- Develop lesson plans and coding projects, contribute to standardized curriculum redesign
- Guide students from zero coding experience through site and game deployment
- Adapt instruction to achieve learning across a wide range of technical levels
- Instruct students in use of logic, HTML, CSS, Javascript, production, project management, and teamwork so that they deliver award-winning projects
- Mentor high school and college students with regard to careers in software and cybersecurity
- Teach program coordinator how to understand and implement various technical tools to meet the demands of a rapidly scaling program with numerous variables and few established processes
- Build strong, positive relationships with parents, corporate benefactors, volunteers, San Francisco Unified School District (SFUSD) teachers and administrators to strengthen program outcomes
- Assess, write, test, and refactor curriculum software based on program needs
- Have produced "Top 3 in SFUSD" award-winning student groups from every class I've taught

Technical and Design Consultant | 2012-present

Providing various technical solutions to clients across a wide range of services

- Developed websites for individuals and small businesses like restaurants, realtors, and manufacturers
- Assessed business needs to procure and implement hardware/software and other infrastructure
- Implemented revenue-increasing and user friendly technical solutions, like automated appointment scheduling, authentication, and cloud servers or colocation
- Evaluate and refactor existing codebase disasters into usable, modular, maintainable tools
- Audit web and mobile applications for security and performance
- Threat modeling and risk assessment, policy development
- Security research and reporting (pre- and post-incident)

Software Engineer, ImagineX Consulting | CREDO Mobile | San Francisco, CA | 2016

Node.js, DevOps and systems architecture specialist for enterprise telecommunications client

- Assessed performance, usability, stability, and security of existing application
- Architected plan for complete refactoring with addition of features, functionality, and test coverage
- Implemented code changes to improve UX for customer-facing app and internal corporate app
- Evaluated web application security flaws to end abuse of voting system and customer data leaks
- Developed reports for engineering team on post-incident research findings and remediation plan
- Instructed engineering team regarding Node.js, databases, agile development, and cybersecurity

Software Engineer | #ISignedAnNDA | 2015-2016

Worked with a team of six to develop demo software in a time critical, security sensitive sprint involving proprietary embedded hardware.

- Directed project workflow organization for prompt product deployment
- Implemented object mapping using JavaScript in Unity
- Produced backgrounds and textures using Adobe Illustrator

Education:

City College San Francisco, Professional Certificates: Advanced Cybersecurity, Cybersecurity, Network Security
Hack Reactor, Advanced Software Engineering Immersive
Telegraph Academy, Advanced Software Engineering Immersive Preparatory Program

Recent Projects:

Uni Guide | Software engineer | in development

Web interface guidance system for Honda Uni-Cub robot; winner of Honda prize 2016 AT&T Shape Hackathon

- Set up emulation environment with Linux VMware and Android Studio
- Devise indoor tracking system
- Develop business logic for robot controls via web interface
- Port Java action commands and event listeners

SudoMesh | Software Engineer | <https://sudoroom.org/wiki/Mesh>

Open access P2P mesh network project for East Bay communities

- Contributing to UI Design for router firmware
- Conceptualize and develop microservices
- Program OpenWrt hardware to achieve network coverage

DataStructurz | Scrum Master | <http://data-structrz.herokuapp.com/>

Data Structure visualization site with Javascript-specific code display and community discussion section

- Implemented webapp using ReactJs, Redux, and Scalable Vector Graphics
- Produced visual representations of data structures using SVGs, GIFs and animation

resu.Me | Software Engineer | <http://resu-me-app.herokuapp.com/#/home>

Job search organization webapp

- Improved legacy codebase by adding features and functionality to MEAN stack app
- Using Mocha, introduced testing to the project to ensure stability

BikeTrader | Scrum Master | <https://github.com/picnicSummit/BikeTrader>

Bay Area bicycle classifieds and access portal for current info about local cycling events and resources

- Utilized AngularJS, Node/Express, and MongoDB to deliver app under strict time constraints
- Designed logo and graphics using Adobe Illustrator; shot masthead photo
- Conceptualized and implemented events feed
- Led workflow implementation and version control

CheapChat | Software Engineer

Locally hosted chat server via Arduino (HTTP chat server), which could be utilized as a "Open Source Slack" analogue for small businesses and schools.

- Implemented a Node.js server with Arduino
- Hosted via both a Raspberry Pi, programmed via a Linux Virtual Machine, and an Intel Edison
- Created chat client using NodeRed, Javascript, HTTP, and HTML

Personal:

When I'm not working, I enjoy participating in hackathons, CTFs and other cybersecurity competitions, both solo and as a core member of CCSF_HACKERS. As an engineer, it is my belief that I have signed up for a life-long learning process, so I attend and teach lots of classes and workshops. As a photographer and artist, I have won entrance to juried shows and was an early adopter of digital image technology. I enjoy hardware hacking, biking, cooking for friends, playing music, rehabilitating rescue dogs, and effecting positive change in the community via educational outreach and mentorship. This summer, I am looking forward to earning my OSCP, attending Defcon/BlackHat/BSidesLV, and acting as SF's lead coach for CyberPatriot (a cyberdefense course and competition for 7th through 12th grade students).