

Katie Widen

Education

Iowa State University- Class of 2015

Computer Engineering - Embedded Systems Focus

Skills

Software: *Proficient:* C, C++, Java, C#, GIT

Familiar: LabVIEW, Verilog/VHDL, Perl, JavaScript, Python

Hardware: *Boards:* 32/16/8 bit architectures - NXP, STM, TI, Arduino

Tools: Logic analyzer, o-scope, multimeter, computerized battery analyzer, etc

Other: Project management, organization, communication, leadership, board schematics

Experience

Iris Automation / C++ Software Engineer

September 2018 - October 2019, San Francisco, CA

Using C++, I wrote decision making code that monitors system health and communicates with external systems to prevent mid-air and near mid-air collisions of unmanned aircraft on the Casia product. Hands on experience in ROS, TX2, and google unit testing. Designed and created an external watchdog system - including firmware and python scripts.

VEX Robotics / Software Engineer

February 2016 - September 2018, Greenville, TX

My main roles involved writing firmware for a network of sensors used in k-12 STEM education - most notably the V5 Li-Ion Battery and V5 Controller: used a variety of microcontrollers and peripherals - SPI, I2C, UART, etc; developed user interfaces with power/memory restrictions; lithium battery monitoring software. Developed young talent - managed and assisted interns.

Iowa State University / Teaching Assistant -- Peer Mentor

August 2012 - Dec 2015, Greenville, TX

With this position, I taught C and basic linux usage. I set up and ran labs, created and ran review sessions, and worked with students in both one-on-one and classroom settings. Required management skills and ability to work on my feet.

Internships

VEX Robotics / Summer '15 Greenville, TX

Using C# and C - decreased 1 week long manual tests into 30-min automated tests.

Amazon / Summer '14 Seattle, WA

Using Perl - create front-end purchasing solutions for e-book commerce

Projects

Girl Powered : From the RECF and VEX Robotics, empowers girls to join and lead in robotics. I've written copy, created workshops and done public speaking engagements

For more info,
view my portfolio:
qawithkatie.com

FIRST Robotics : Volunteer as a mentor since 2016. I serve as process facilitator, meeting leader, and primary software mentor. I teach students leadership, critical thinking, and personal management/conflict resolution skills.