Giselle Koo

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Education

Tunxis Community College
Major: Engineering Science
GPA: 3.9
Anticipated Graduation:
Spring 2018

Awards

WiCHacks 2017: "Light Code" won Best UI by New Relic, Best Hardware Hack by Liberty Mutual, MLH Office Gallery
OSHWA 2017: Selected as one of 10 Ada Fellows for Open Source Hardware Summit 2017
Society of Manufacturing Engineering: Recipient of the 2017-2018 E. Wayne Kay Community College Scholarship

Skills

Electronics: Soldering, Eagle PCB design, Wearable Electronics
Programming: Git, JavaScript, HTML/CSS, C++, Arduino, Java, LabVIEW

Work Experience

Computer Lab Assistant, Silas Deane Middle School
Wethersfield CT| Aug '14-Jul '16
- Supervised the computer lab throughout the day.
- Kept inventory of and coordinate use of electronic devices and accessories.
- Provided tech support for staff and students.
- Ran professional development workshop on Google products.

Team Member, Jo-Ann Fabric & Craft Stores
Newington CT | Apr '17 - present
- Customer service, cashier, & cutting counter duties

Extracurriculars & Volunteer Experience

FIRST Robotics Competition Team #178 *September 2009 - present*
- Serves as mentor for high school students. Help develop technical and management skills through HS robotics challenge.
- Held several leadership positions including Team Captain in 2013.
- Focus on electrical/programming, web design, project management, rapid prototyping, esp. Inspiring and supporting female members.

Let's Build Rockets Inc. *January 2015 - present*
- Assisted in establishment of non-profit.
- Contributes to open-source rocketry data acquisition and visualization tools with node.js and Processing.
- Supervise high school volunteer interns in projects including rocketry payload electronics dev, PCB kit design, and website database design.
- Exhibited at World Maker Faire NY and CT Science Center Robotics Day.

CT IEEE Robotics and Automation Society *July 2014 - present*
- Volunteer technical mentor for various middle school STEM programs
- Beta tester for HS Zero Robotics competition alongside MIT SPHERES team

Projects

Horizon Tracker & IMU - Let's Build Rockets Inc. *June 2017 - present*
- Supervise high school volunteer intern in design and creation of horizon tracking payload for model rocket
- Use Open CV and 2 Raspberry Pis to determine orientation of rocket based on the angle of the horizon from camera images in real time
- Develop redundant system using 10-DOF accelerometer-based IMU for data comparison and launch detection.

Website - Let's Build Rockets Inc. *September 2016 - present*
- Work on back- and front-end development of new website using Jekyll static site generator and GitHub pages.
- Manage contributions of less experienced web designer and developer.

RCPR - Let's Build Rockets Inc. *February 2016 - present*
- Design a roboRIO-compatible prototyping robot for FRC teams
- Design schematics and PCB for motors, LEDs, and power management using Autodesk EAGLE software

Sign In Service - Silas Deane Middle School *October 2014 - July 2016*
- Developed server- and cloud-based tools to keep track of when students check in and out of non-classroom areas such as the computer labs, library, and administrative and counseling offices.

Trinity Fire Fighting Robot Competition *December 2016 - present*
- Design and build autonomous robot to navigate a maze and locate and extinguish a candle in shortest period of time
- Utilize Robot Operating System (ROS), SLAM algorithm using LIDAR data, OpenCV image processing and IR sensor to locate candle flame
- Awarded Outstanding Robots in Connecticut award by IEEE CT