Work Address:
555 Technology Square
Cambridge, MA 02139

Joseph Samela

jsamela@draper.com – (203)-804-3376
josephsamela.github.io

Permanent Address:
92 Bradford Road #2
Watertown, MA 02472

Education

Worcester Polytechnic Institute (WPI), Worcester, MA
Bachelor of Science in Mechanical Engineering, Minor in Physics, May 2016

Experience

Draper Laboratories *Engineer, May 2016-Present*

- Lead developer of MATLAB data processing/visualization application used by program engineers to investigate accelerometer sensor operation/performance.
- Member of team developing distributed computing system to qualify SNC Dreamchaser Flight Computers. Includes multiple server applications controllable through standardized TCP/IP API for Data Acquisition, DC Power, Serial Comms, GPS Timing & Sync, Digital IO and more.
- Lead programmer of Data Dashboard application for remote monitoring of system operation. Python back-end (Flask) pulls data from test equipment monitoring APIs. Front-end rendered in browser, built with Bulma.io framework.
- Programmed suite of automated Verification & Validation unit tests to expedite software development and integration.
- Led development of Elasticsearch database to enable rapid data search and discovery.
- Developed client application enabling GUI control of Relays, PPS and Standard + MIL-STD-1553 Discretes.
- Mechanical design/drafting with Solidworks and CREO. Projects include design of accelerometer test fixture, cable/shorting plug drawings + rapid prototype card edge connector harness.
- DoD Secret Clearance.

U.S. Fish & Wildlife Service *Biological Intern*, *May 2014 – August 2014*

- Lived and worked in national wilderness as team member monitoring endangered shorebird populations. Monomoy National Wildlife Refuge in Chatham, MA.

CT Agricultural Experiment Station *Plant Pathology Intern, October 2011 – June 2012*

- Internship with CT Agricultural Experiment Station's Department of Plant Pathology, conducted experiments indectigating *Sudden Vegetative Dieback* of Connecticut salt marshes.

Projects

Major Qualifying Project, Airborne Wind Energy, May 2015 – November 2015
Member of a 4-person team, developed a low-cost water pump system for impoverished rural communities that operates using airborne wind energy. Produced accurate 3D models to expedite an iterative design process. Conducted flight-testing at Blue Hills Observatory in Milton, MA.

Interactive Qualifying Project, Costa Rica, San Jose, March 2015 – May 2015
Developed financing strategies for Ener-G Tech Investments to encourage energy efficiency projects including carbon offset credits, sustainable banking and crowdfunding. Conducted interviews with domestic and international industry professionals to fast track development of new policies that benefited all parties.

Technical Skills

Programming Languages: Python, HTML/CSS/Javascript, MATLAB**,** LabVIEW, Processing 3.0/Java, Arduino
Software: Solidworks, Creo (Pro-E), Linux, GIT, SVN, Atlassian JIRA & Confluence, Photoshop, Premiere
Certifications: Solidworks CSWA Certification, Licensed Radio Operator: Technician, First Aid & CPR, Personal Watercraft License

Leadership

Webmaster/Public Outreach Coordinator, WPI Satellite Development Club, WPI, August 2014 – Present
Eagle Scout with Silver Palm, Troop 640, Hamden, CT, 2006 – 2012