

Colleen Dunlap

Campus Residence:
Milwaukee, WI

colleen.dunlap@marquette.edu
<http://github.com/colleenDunlap>
(513) 288-4227

Permanent Residence:
Cincinnati, OH

Education

Marquette University—Milwaukee, WI

Bachelor of Science Degree in **Computer Engineering**

Minor: Mathematics; Concentration: Engineering Leadership

Expected Graduation: **May 2020**

Cumulative GPA: **3.95/4.00**

Work Experience

Software Intern, Graphics

Astronautics Corporation of America, Milwaukee, WI

May 2018-December 2018

- Develop graphic features for a Synthetic Vision System (SVS) prototype, utilizing OpenGL, C++ and SVN
- Integrate SVS and enhanced traffic features into existing C++/Python product platform

Systems Engineering Co-op

Medtronic, Mounds View, MN

May 2017-May 2018

- Designed and implemented statistical analysis of radiation effects on Micra VR hybrids using MATLAB
- Implemented and simulated an algorithm to dictate pacing mode switches in the Micra AV pacemaker
- Prototyped an Android app in Unity that uses augmented reality to help users manage anxiety

MATLAB Software Developer

GasDay Project, Milwaukee, WI

April 2016-December 2017

- Product Owner of MATLAB codebase—managed product backlog/stakeholder needs to direct development
- Worked with team members to develop a data extraction process from a SQL database
- Implemented Probabilistic Forecasting Research into production codebase
- Reorganized input data for an Ensemble Model rewrite

Lead Instructor Level I

Marquette University Girls Who Code, Milwaukee, WI

May 2016-May 2017

- Designed and implemented lesson plans teaching Python programming to approximately 40 students, ages 8-18
- Instructed and organized introductory computer hardware and network architecture lessons

Relevant Coursework/Extracurricular/Volunteer Work/Awards

Sol Flame Founder:

Leading a team of cross-disciplinary college students to develop and market a solar powered clean-cook stove to address the global health concerns associated with cooking over open-fires; <http://solflame.weebly.com>

Colleendunlap.ddns.net:

Built an HTML/CSS web application and hosted on my Raspberry Pi (via port forwarding) during fall of 2017

Engineers Without Borders, Marquette University Chapter:

Electrical Design Team Lead for El Aguacate School Project; Fundraising Chair 2019; Hydraulics Team for Chupoj-II bridge project; Traveled to Joyabaj, Guatemala to implement a water tank design in August 2018

COEN 4820 Operating Systems and Networks:

Wrote an embedded operating system for a Raspberry Pi using Linux machines and C programming

COEN 2610 Software Methodologies:

Served as Scrum Master of a team of peers to develop a Node.js application that allows users to find and post events in the Milwaukee area; application utilized Google Maps API and MongoDB

GE Predix The Future Hackathon Winner:

Awarded first place at GE Healthcare's 24-hour hackathon for developing a Node.js web application that successfully utilized GE's in-house Predix API and communicated the contents of their database

Skills/Interests

Technical Skills: C++, HTML/CSS, JavaScript, Node.js, React, MATLAB, SQL, Java, C, Python, ARM, VHDL, Git, SVN, Minitab, Scrum Framework, Test Driven Development

Interests: Global Engineering, Web Development, IoT, Augmented/Virtual Reality, Adaptive Technologies, Data Visualization, Machine Learning, Algorithm Development, Bioinformatics, Cybersecurity