Colleen Dunlap

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Education
Marquette University—Milwaukee, WI
> Bachelor of Science Degree in Biomedical Engineering, May, 2019
> Major: Biocomputer Engineering
> Cumulative GPA: 3.94/4.00

Work Experience
Data Analyst
GasDay Project, Milwaukee, WI   April 2016-Present
- Clean, analyze, and report weather and usage data that is used to generate demand forecasts for natural gas utilities
- Maintain, debug and improve the company's MATLAB code base by writing test code, prototyping plots for the sales team, and debugging figure generation for data reports
- Product Owner of company's MATLAB codebase—manage product backlog and direct developers

Lead Instructor Level I
Marquette University Girls Who Code, Milwaukee, WI   May 2016-Present
- Write and implement lesson plans teaching Python programming to approximately 40-50 female elementary, middle, and high school aged students
- Oversee the progress of other Level I instructors and classes; ensure consistency in grading and material taught

Lifeguard; Activity Planner and Leader
Stepping Stones, Inc., Cincinnati, OH   Summer 2013-2015
- Planned, adapted, and led activities for approximately 45 camp participants—many of whom have special needs
- Ensured safety and led waterfront activities for approximately 70 camp participants

Class Experience
Introduction to Computer Programming
- Programmed a version of the video game Frogger using Java

Engineering Models I
- Used LabVIEW to create a program for a system that uses motion sensors and auditory signals to adapt baseball for people with visual impairments

Volunteer Experience/Leadership /Awards
O4U Engineering Conference Attendee:
> Received a scholarship to attend the 2016 O4U Engineering Conference; topics discussed were inclusion and diversity in the engineering field, as well as leadership and social change.

Project Mentor:
> Mentored three video game design teams as part of volunteering with Girls Who Code in the spring of 2016

International Learning Center Volunteer:
> Assist in teaching ESL classes to Southeast Asian refugees; work 1:1 with students with learning disabilities

Marquette University College of Engineering Competition Scholarship Class of 2019:
> Scored in top 2.5% of admitted Marquette Engineering students on STEM knowledge and skill-based test

KEEN Entrepreneurial-Minded Design Award:
> Awarded for working with a design team to create a technically feasible and marketable product and business model for the Senior Living community

Skills/Interests
Technical Skills: MATLAB, Java, C, Python, Git, Data Structures, Scrum Framework, Test Driven Development, Graphical User Interface (GUI), Microsoft Office
Interests: Rugby, Swimming, Social Justice, Community Service, Adaptive Technologies, Neuroscience

Colleen Dunlap
E-Lead Application Essay

I want to be a part of E-Lead in order to build confidence, in both my technical and personal skills. I am very passionate about what I do, and I want to make the world better. I want to take leadership in my academic, career, and extracurricular pursuits. I don't want to be the person that waits for something to change; I want to make the change when I see something wrong. In order to make these changes, I need to have confidence in myself and my skills—whether that be a social or technical.

One way I've worked to make change in my field is through my work with Girls Who Code. As a female in a male-dominated industry, I've seen how underrepresentation can hurt a population. When a demographic is a minority, that demographic is at risk for being marginalized. I recently went to the O4U Engineering conference at Stanford University, where I heard Lynn Conway speak. She talked about how her advancements in VLSI chip design went unnoticed, while her male partner received credit. She did more research on this female erasure in STEM, and came to the conclusion that people become blind to innovations that happen by people that they wouldn't expect the innovation to come from. Essentially, if one stereotypically does not look like an innovator, the public is less likely to note their achievements.

While I've never started a tech revolution in Silicon Valley, I have experienced this erasure in a smaller, but still significant, scale. I've been told the reason I've been chosen for jobs or scholarships is because I'm a woman, and I've been told I receive better grades on tests because "my professor thinks I'm hot"—an assertion that is both untrue and disturbing. In addition, the lack of diversity contributes to a hostile learning and working environment. I've often heard my classmates use racist, sexist, and ableist slurs in the classroom. If these people learned to work with more diverse groups of people, however, they would almost certainly be more inclusive and accepting of the minority groups in the field.

All these in mind, if there is something I can do to make someone else's experience in the industry better, I want to take initiative and lead the movement to make the change. That's why I'm so passionate about my work with Girls Who Code. I want to show the girls I work with that there is a place for them in this field, by acting as a role model. I want them to be empowered by the programming skills they're learning, and have confidence to enter any field they want to—not just the ones they are told are jobs suitable for females. In addition, I've met with Milwaukee Public Schools to discuss how we can make our program more accessible to lower income students, because everyone deserves the opportunity to learn these valuable skills, regardless of economic class.

Not only do I want to inspire social change, but I want to pioneer technical innovation as well. Since I began working at Stepping Stones, Inc.—an adaptive summer camp for kids and adults with developmental disabilities—I've been passionate about making a difference in the disability community. For example, people with Down syndrome, a condition that often yields heart complications, are often placed on the bottom of the transplant list due to ableist assumptions about their quality of life. While this injustice sickens me, I am not a lawyer and I will probably not be at the frontlines of this legal battle. However, I can use my technical skills to investigate, develop, and market new cardiac therapies that increase the life expectancy of individuals with Down syndrome. This is one of the many opportunities I have to use my skills to inspire positive change in my community and the world.

Ultimately, I want to be a part of E-Lead so I can learn how to turn my passion into initiative, and then my initiative into results. I want to know how to better navigate the professional world, and make this world better for people of all backgrounds.