

Elizabeth Mahon

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EDUCATION

Colorado State University	Fort Collins, CO	December 2017
M.S. in Civil Engineering; Concentration in Water Resources Planning and Management		GPA: 3.73
Franklin W. Olin College of Engineering	Needham, MA	May 2015
B.S. in Engineering; Concentration in Computing (Software Engineering)		GPA: 3.76

Skills: C#, JavaScript, SQL, LabView, Python, Java, R, C, Matlab, Linux, QGis, ArcMap, Git, Mercurial, SVN.
Cloud experience (Azure, AWS)

EXPERIENCE

Software Engineer at Toxnot (Fort Collins, CO) August 2018-July 2020

- Wrote features across the entire stack – database to front end using SQL, C#, TypeScript and JavaScript
- Created dynamically loading webpages using jQuery
- Developed automated testing and building using Azure and Selenium
- Worked with customers to debug issues and wrote customer-facing documentation

Assistant Engineer at Natural Resources Consulting Engineers (Fort Collins, CO) October 2017-August 2018

- Automated retrieval of basic data about Montana water rights using Python
- Mapped water right places of use, investigated evidence of water use, and built survey grids using QGis

Internship at Open Water Foundation (Fort Collins, CO) June-August 2013 and 2014, January 2014

- Participated in an Agile development team
- Converted a long-running SVN repository to a Git repository
- Wrote web visualizations for water data in JavaScript
- Wrote data retrieval programs in Java using REST services

Research with Dr. Arabi (CSU, Fort Collins, CO) November 2015-December 2017

- Designed and implemented user interface for network processing in eRAMs with Python and JavaScript
- Designed example with data from Colorado Decision Support System and further processing in QGis
- Interfaced with Linux development environment using VirtualBox
- Added debug components to a network solving algorithm written in C# using MonoDevelop

GIS for Civil and Environmental Engineers (CSU, Fort Collins, CO) February-May 2017

- Analyzed viewsheds of trails in Rocky Mountain National Park using Python scripts for ArcMap

Senior Capstone Project in Engineering (Olin College, Needham, MA) September 2014-May 2015

- Participated in an Agile development team and was key member in estimating time for features
- Worked with a team to design a new product for Ivani LLC (patent pending – application # 14/824994)
- Wrote an Android app in Java that communicated with an AWS server to implement said new product
- Designed the user interface for the app using information from numerous user interviews

Olin Robotic Sailing Coding Team (Sailbot) (Olin College, Needham, MA) October 2011-May 2015

- Wrote code that interfaced with several sensors, including GPS and anemometer, and several servos
- Taught new members LabView and system design
- Led redesign of software architecture
- Maintained SVN repository