AmyBea Walder

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EDUCATION

Worcester Polytechnic Institute (WPI) – Worcester, MA., B.S. Computer Science, GPA: 3.23 August 2014 – May 2018

Related Coursework: *Software Engineering, Software Security Engineering, Intro to Artificial Intelligence, Machine Learning, Database Systems I & II, Algorithms, Linear Algebra, Probability, Statistics I & II, Discrete Mathematics, Data Management in the Cloud and Cluster Computing, Full Stack Web Development (at Graduate level), Cryptography*

TECHNICAL SKILLS:

Programming Languages: Python (Tensorflow, Keras, Pandas), Java, SQL, C, C++, HTML, CSS, Javascript (JQuery, Bootstrap, Node, Express, Mustache, Socket), KQL, Linux

Software: Wireshark, Git, Linux, GDB, Google Cloud Platform, CouchDB, Elasticsearch, Kibana, Docker

EXPERIENCE

Post Bachelor Research Associate – Oak Ridge National Laboratory September 2019 – September 2020

Worked on backend for machine learning software used to identify images. Focused on improving the performance by checking the cache based on bounding-box user requests. Implemented Spring Boot framework and Swagger to handle user request input on the browser and query the Elasticsearch database for the filtered request response to the user.

Higher Education Research Experiences, Research Participator – Oak Ridge National Laboratory May 2019 – August 2019

Played a crucial role in design and development of real-time dashboards for data analytics purposes. Assisted with both system and user metrics (gathered by cAdvisor and Prometheus) visualization using tools such as Grafana and Kibana. Aided with parsing and querying opensource data via Python, and pipelining through Filebeat to Logstash to Elasticsearch with the goal of visualizing the data in Kibana.

Major Qualifying Project (MQP), Student – WPI September 2017 – April 2018

Created an Android application, along with an accompanying written project report, that facilitated the collection of data for the experimental stage of the Music-induced Analgesia Genome Study (IMAGS). The app provided patients who suffer from chronic pain a tool to document their pain before and while listening to a selected song as well as Spotify metadata. Worked on a backend database to store a local copy of data on mobile device via SQLite, for offline availability. Volley was used to send data through HTTP POST requests to PHP script accessing a MySQL database on WPI server. Developed following the agile scrum methodology, utilizing other project management tools such as Trello.

Interactive Qualifying Project (IQP), Student – Worcester, England March 2017 – May 2017

Researched ways for improving the Worcester Arts Workshop's (WAW) operations to allow it to improve its sustainability and accessibility. Carried out by organizing an experimental event for University of Worcester's (UW) Green Week, and observing employees time usage. Findings were presented to WAW and UW as a team.

U.S. Geological Survey (USGS), Computer Scientist Intern **–** Vancouver, WA. February 2016 – August 2016

Used skills in microcontroller programming to write C test software for a 'site power management board' utilized at sites on the Cascade volcanos. Spent time using Python to work with large data sets, translating and transforming the raw sample data into a compelling and useful form that could be utilized by USGS scientists in their work.

Oregon Health & Science University (OHSU), Student Researcher **–** Portland, OR. June 2013 – August 2013

ACTIVITIES / COMMUNITY SERVICE:

Alpha Gamma Delta Women's Fraternity, Interim Social Internal Chair **–** WPI November 2014 – November 2017
Women's Rugby Club Team, Equipment Manager – WPI September 2015 – December 2016
Rose City Rollers Junior Roller Derby Team, Skater and Volunteer – Portland, OR. October 2012 – April 2014
Grant High School Dragon Boat Team, Tiller, Paddler, and Caller **–** Portland, OR. January 2012 – June 2014