Alex Marozick

Software Developer Graduated Summer 2021

Motivated and diligent grad focused on growing as a programmer. Self-driven with a strong work ethic and willingness to learn.

alexmarozick@gmail.com (408)-896-2850 alexmarozick.github.io/ linkedin.com/in/alex-marozick-290b85195

DEVELOPMENT PROJECTS

Dark Web Crawler/ Research Paper (01/2021 - 03/2021)

- Used TorSharp, Abot, and HtmlAgilityPack to create a webcrawler that crawls Tor sites from a windows virtual machine.
- Data stored in MongoDB database.
- Wrote research paper on content of Tor, Tor Infrastructure and Security of Hidden Services on Tor (*available upon request).

Rap Analysis Project (09/2020 - 11/2020)

- A rhyme detection analysis framework and webservice for Hip-Hop/Rap lyrics that visualizes the way a rapper rhymes.
- Users are able to login and analyze their Spotify account.
- Uses Flask web framework, MongoDB database, LyricsGenius API, Spotify API, Genius API and deployed on Heroku.
- https://rhyme-analyzer.herokuapp.com/

Reverse Geocode Project (09/2020 - 10/2020)

- Web service that reverse geocodes a route given in the form of a gpx file and it is translated into a cue sheet of directions.
- Flask web framework, Mapbox API, Linux environment and deployed on Heroku.
- https://reverse-geocoding-base.herokuapp.com/

Elemental Puzzle Game (03/2021 - 05/2021)

- Uses Unity, a game developing platform
- Uses C++ and C#

Muti-Threaded Publisher/Subscriber Server (04/2020 - 05/2020)

- Used C, Unix System Calls, Multithreading & Synchronization
- Implemented a circular buffer Queue class in C using structs and function pointers to serve as a time-sensitive topic store of posts
- Executed sets of multi-threaded read-write instriuctions based on a set of text files

Computer Science School Projects (09/2018 - 05/2021)

- 2048 tile based game replica in Python (functionally equivalent to the original 2048 game including the display and score counter)
- Sudoku Solver in Python with display (solves any solvable Sudoku puzzle)
- Making Abstract Data Types in C with standard methods for each
- Creating and implementing data structures in Python (wrote methods for RB trees, binary search trees, queues, stacks and B-trees)
- Reverse Polish Notation Calculator (a calculator in which user doesn't need parenthesis to define order. Created using Python)

INTERESTS

Frontend Development | Backend Development | Computer-Human Interface | Software Development | Computer Security | Machine Learning

WORK EXPERIENCE

Server & Bartender

Olive Garden

05/2017 - Present *Eugene, Oregon*

Grill, Prep and Line

Chipotle Bar & Grill

06/2016 - 08/2017 *Eugene, Oregon*

Achievements/Tasks

- Trained people in all positions

TECHNICAL SKILLS

Languages

Python, C/C++, C#, HTML5, CSS, JavaScript

Operating Systems

Unix/Linux, Windows

Databases

MongoDB

Tools

Virtual Environments, Heroku, Flask, AJAX, Unity, Docker, git, RESTful APIs, BeautifulSoup, Pandas, matplotlib, TorSharp, Abot, Jupyter

EDUCATION

Bachelor of Science in Computer Science

University Of Oregon

09/2016 - Present *Major GPA 3.53*

Courses

- C/C++ and Unix
- Computer Organization
- Principles of Programming Languages
- Game Programming
- Computer & Network Security
- Data Structures
- Data Science
- Operating Systems
- Intermediate Algorithms
- Artificial Intelligence

Minor in Mathematics

University of Oregon

09/2016 - Present

Courses

- Calculus (derivatives, integrals, series)
- Discrete Math
- Differential Equations
- Cryptography
- Linear Algebra
- Statistics

Early Education

Leigh High School

08/2012 - 06/2016 *San Jose, California*

Achievements and Extracurriculars

- 7 AP courses
- Science Club Vice President
- Award for most sports played in my class
- 4 years of wrestling, team captain, received 2 "Coach's Award" and "Iron Man Award" (hardest working)
- 4 years of track & field, pole vault team leader
- 2 years of cross country