ANDY MAHONEY

Computer Scientist

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📍 Queensbury, NY

⌨ https://github.com/Saious119

EXPERIENCE

Paid Undergraduate Researcher
Clarkson University

📅 September 2017 – August 2020

- Worked with Dr. Banavar on detecting stress in user voice using voice home assistants (May 2018 - September 2019)
  - Using AWS Lambda, C++, Python, and Matlab
  - Take in voice as input, run it through an Algorithm, and give a result all through smart home and IOT devices

- Worked with Dr. Banavar on making an EEG control scheme for robots. (January - May 2018)
  - Using Python, after receiving data from an EEG headset on brainwave activity, translate changes in activity to a control scheme for turtle bots.

- Worked with Dr. Tamon on visualizing Quantum Walks. (September 2017 - January 2018)

Lab Director of the Clarkson Open Source Institute
Clarkson University

📅 August 2017 – April 2021 📍 Potsdam, NY

- Took meeting minutes
- Gave several in Lightning Talks (5 minute CS presentations)
- Made a webserver for personal website (www.fortrash.com)
- Worked on robotic systems involving Turtle bots
- Imaged and maintained lab machines
- Taught Workshops on Fortran 77, Fortran 18, and popular Esolangs

Software Engineering Intern
UPS

📅 June 2021 – Present 📍 Louisville, KY

- Performed security patches on ASP.NET web apps
- Used SonarQube to reduce technical debt of ASP.NET web apps
- Learned and Implemented in daily work life the principles of DevOps and Agile development
- Wrote a new database library to be used for C# web apps that use large data sets for critical operations

LEADERSHIP

- Held the e-board positions of President, Webmaster and Historian for Alpha Phi Omega
- Hosted and participated in several community service events
- President and co-founder of the Clarkson University Tea Club

EDUCATION

Bachelor of Science, Computer Science
Clarkson University

📅 August 2017 - May 2021

PROJECTS

C-String data structure for Fortran 77

- Developed a C-string like data structure for the Fortran 77 language using a subroutine and designing input and output for a character array.

Personal Website

- Used the Nginx webserver to create a personal website to host information about me, located at www.fortrash.com.

A Rustacean's Text Editor

- Used the Rust programing language to write a terminal based text editor with macros and text highlighting as well as version control and virtual desktops.

Dungeon-Redux

- A rogue like survival game written in C#.
- written with the Monogame library for GUI edition
- Currently still in development but is being distributed from personal website in Alpha

SKILLS

- Programming languages:
  - C#, C++, Go, Python, Rust, Haskell, Fortran 77, Fortran 18, Java, Matlab, Javascript, HTML and CSS, C, SQL, Flex and Bison, VHDL, Nim, LaTex, N1QL, MongoDB, ASP.NET, Couchbase DB
- Tools:
  - Visual Studios, PuTTY, Unreal Engine 4, Unity, Monogame, Amazon Lumber Yard, AWS, Alexa Skills, Google Actions, VIM, SSH, nginx, git, ROS, Jenkins, Red Hat Openshift, OWASP ZAP, SonarQube
- Hardware:
  - Raspberry Pi, Arduino Uno/Due/Mega, ESP8266, Built and repaired computers
- Foreign Languages:
  - French (intermediary)
  - Japanese (Basic/Novice)