## **ANDY MAHONEY**

## **Computer Scientist**

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**Q** Louisville, KY

## **EXPERIENCE**

## Intermediate Software Engineer **UPS**

October 2022 - Present

**Q** Louisville, KY

- Architected, developed, and deployed a highly performant and scalable service to interface between multiple apps using Redhat AMQ and Oracle DB
- Created an authentication API in .NET 8 and deployed into production via Jenkins or Azure Dev Ops and Redhat Openshift 4 or GCP
- Worked on several modules of a .NET 8 and Java app using microservice and onion architectures with new CI/CD pipelines
- Created new web apps using Angular frontends with .NET 8 backends in a small team

## Entry Level Software Engineer **UPS**

- Updated legacy C, C++, and .NET Framework apps using .NET 6
- Added new features such as Azure login support and implementing No SQL databases in older applications
- Migrated apps from windows server 2016 to Open Shift Container Platform 4 to utilize high availability
- Performed security patches on ASP.NET web apps including moving apps from .NET Framework to .NET 6
- Used SonarQube to detect and resolve bugs, security flaws, and code smells of ASP.NET web apps and worked on automation and test pipelines with Jenkins and ZAP
- Learned and Implemented in daily work life the principles of DevOps and Agile development

# Lab Director of the Clarkson Open Source Institute

#### **Clarkson University**

Potsdam, NY

- Managed the research lab, including finances, resources, and resolved conflicts
- Taught Workshops on Fortran 77, Fortran 18, and popular Esolangs
- Made a webserver for personal website (www.fortrash.com)
- Gave several Lightning Talks (5 minute CS presentations)

## Undergraduate Researcher

#### **Clarkson University**

September 2017 - August 2020

- Worked with Dr. Banavar to detect stress in user voices with home voice assistants, using technologies like AWS Lambda, C++, Python, and Matlab
- Worked with Dr. Banavar to create a software control scheme for turtle bots, using data gathered from an EEG headset

## **EDUCATION**

Bachelor of Science, Computer Science

#### **Clarkson University**

## August 2017 - May 2021

## **PROJECTS**

#### **Personal Website**

• Setup an Nginx webserver to create a personal website using Astro.js

#### **Dungeon-Redux**

- A rogue like survival game written in C#
- Written with the Monogame library for graphics
- Distributed from personal website; currently in Alpha

#### **Discord Bots**

- Made markov chain based text generator bots in Go
- Made several bots in Discord.js
- Made a bot able to scrape the web for images and play audio in voice chat
- Made two discord bots in Discord.NET capable of using slash commands to interact with a MongoDB database hosted on Atlas

### Manga Tracker Web App

- A web app made in ASP.NET Blazor on .NET 6
- Supports OAuth with Discord and local DB login options
- Users can store and keep track of their manga collection with a PostgreSQL database
- Currently running as a standalone app with releases on my Github

## **SKILLS**

- Programming languages:
  - C#, Typescript, C++, C, Python, Javascript, Rust, Fortran 77, Fortran 18, Java, Matlab, HTML and CSS, Go, SQL, PL/SQL, LaTex, 6502 Assembly
- Tools:
  - Unreal Engine 4, AWS, Google Actions, SSH, nginx, git, ROS, Jenkins, Red Hat Openshift, OWASP ZAP, SonarQube, MongoDB, ASP.NET, Couchbase DB, Cockroach DB, Visual Studio 2022, InteliJ, Kubernetes, Google Cloud Platform, Azure Dev Ops, Godot
- Foreign Languages:
  - French (intermediary)
  - Japanese (Basic/Novice)