

Andy Mahoney

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Education

Clarkson University, BS in Computer Science

August 2017 – May 2021

Experience

Software Engineer, UPS – Louisville, KY

October 2022 – Present

- Pioneered the use of Entity Framework for use in our backend tech stack for highly data driven applications allowing for faster development time
- 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
- Created new RESTful APIs in .NET 8 that leverage Entity Framework to work with a MS SQL Database

Junior Software Engineer, UPS – Louisville, KY

June 2021 – October 2022

- Wrote and deployed several highly performant Java 17 applications using Maven and Spring Framework
- Updated legacy C, C++, and .NET Framework apps to .NET 6, resulting in easier maintainability and more secure and fault tolerant applications
- Added new features such as Azure SSO login support and implementing No SQL databases in older applications to allow for more secure login processes
- Migrated apps from windows server 2016 to Open Shift Container Platform 4 to utilize high availability, resulting in increased uptime, better fault tolerance, better resource utilization, lower infrastructure costs
- 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

Lab Director, Clarkson Open Source Institute, Clarkson University – Potsdam, NY

August 2017 – April 2021

- Managed the research lab, including finances, resources, and resolved conflicts
- Taught Workshops on Fortran 77, Fortran 18, and popular Esolangs
- 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

Projects

Personal Website

fortrash.com

- Setup an Nginx webserver to create a personal website using Astro.js with automatic CI/CD using netlify

Discord Bots

- Markov chain based text generator bots in Go
- Written in multiple languages including Javascript, Python, Go, and C#
- Bot able to scrape the web for images and play audio in voice chat
- 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 8
- Supports OAuth with Discord and local DB login options

- Users can store and keep track of their manga collection with a PostgreSQL database
- Uses Entity Framework as an ORM to interact with PostgreSQL database
- Currently running as a standalone app with releases on my Github

Technologies

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

Technologies: .NET, Entity Framework, Microsoft SQL Server, SSH, nginx, git, Jenkins, Red Hat Openshift, OWASP ZAP, SonarQube, MongoDB, ASP.NET, Couchbase DB, Cockroach DB, Visual Studio 2022, IntelliJ, Kubernetes, Google Cloud Platform, Azure Dev Ops, Godot, Docker

Foreign Languages

- French (Intermediate)
- Japanese (Basic)