# Aaron McCarthy

Senior Software Engineer

✉ amccarthy9904@gmail.com   📍 Seattle, WA   ⌂ github.com/amccarthy9904   ☐ 603-303-5428

## ABOUT

Expert in architecting high-availability, asynchronous systems for seamless, reliable operations. Proficient across diverse technologies and tools, ensuring solutions that exceed expectations. Proven ability to craft innovative, robust solutions for any challenge.

## EXPERIENCE

**Lumen**                                                                                              **Seattle WA**
Sr. Software Engineer                                                                    2021 - present
- Created event driven server recommissioning pipeline with RabbitMQ
- Reduced server recommissioning time by 30% with increased reliability
- Built Automated Azure Hyper Converged Infrastructure deployment pipeline
- Automated delivery of pre-configured virtual HCI clusters to customers

**Boeing**                                                                                            **Everett WA**
Software Engineer                                                                              2019 - 2021
- Lead design and implementation of virus scanning API microservice
- Used RabbitMQ in Java to create reliable scalable service, reduced scan time by 60%
- Built Azure DevOps CI/CD pipelines for .NET apps, replaced manual deployments
- Reduced Gradle build time by 80% on a monolithic Java project

**TechLink**                                                                                          **Bozeman MT**
Software Engineer Intern                                                                    2017 - 2019
- Developed automated testing framework in C♯ with Selenium
- Wrote automated tests with MSTest for Dept. of Defence
- Lead initial testing and design work for new desktop application
- Used Agile to collaborate with colleagues through GitLab's Kanban

## EDUCATION

**Montana State University**                                                          **Bozeman MT**
BS in Computer Science                                                                            2018

## PROJECTS

**Biomedle**
- Daily geography quiz game written in Node with React and Redis
- Crafted an intuitive React.js interface, optimizing navigation with component-based architecture
- Implemented automated export workflows, dynamically adjusting export parameters

**Currency Converter**
- Created Angular web app with Bootstrap hosted on AWS that converts currency
- Asynchronously fetches exchange rates in JSON from cryptocompare.com's API

**IMDB Movie Data Analysis**
- Created a MySQL database with imdb.com's datasets
- Created Naive Bayes and Quadratic Regression models with sklearn to make predictions
- Found relationships between actors age and final movie score

**ListShare**
- Built a website using Django hosted on AWS
- Created interface with HTML/CSS, managing data with SQLite

**Twitter Reply Bot**
- Built a Twitter bot in Python that monitors other accounts
- Asynchronously sends replies to monitored accounts when they tweet

**Pizza Ranch Adventure**
- Created a side-scrolling game in Python using Pygame
- Implemented jumping mechanics, multiple music tracks, collision detection

**arm@ML**
- Exploratory work in the construction and training of basic Neural Networks
- Implemented PSO, K-means, DBscan, Genetic Algorithm, Evolution Strategy in Java
- Trained Radial Basis Function and Sigmoidal Neural Networks using Backpropagation

## Skills

- **Programming Languages:** Python, Java
- **Cloud Platforms:** AWS, GCP, Azure,
- **Infrastructure as Code:** Terraform
- **CI/CD:** Azure DevOps, GitLab CI/CD
- **Database Systems:** SQL, NoSQL
- **Distributed Services/Messaging Systems:** RabbitMQ
- **Containerization/Orchestration:** Kubernetes, Docker