AARON MCCARTHY

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SUMMARY

Software Engineer with expertise 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.

EDUCATION

Montana State University   **September 2014 - May 2018**
Bachelor's, Computer Science

PROFESSIONAL EXPERIENCE

Lumen   **Seattle, WA, USA**
Sr. Software Engineer   *November 2021 - November 2023*
- Created event driven server recommissioning pipeline with Python, RabbitMQ, Telemetry
- Reduced 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

The Boeing Company   **Seattle, WA, USA**
Software Engineer   *January 2019 - November 2021*
- Designed and built Java virus scanning API microservice with RabbitMQ
- Reduced scan time by 60%, increased reliability and visibility of process and outcomes
- Built Azure DevOps CI/CD pipelines for .NET apps, replaced manual deployments
- Lead Gradle-izeation of monolithic Java build process
- Reduced build time by 80% and saved money on licensing fees

TechLink   **Bozeman, MT, USA**
Software Engineer Intern   *January 2017 - November 2018*
- Developed automated testing framework in C# with Selenium for Department of Defence
- Wrote automated tests with MSTest, ran in cloud on Browserstack
- Lead design work for new desktop application, mentored new interns
- Used GitLab's CI/CD pipline to enforce testing standards

PROJECTS & OUTSIDE EXPERIENCE

Biomedle
- Daily geography quiz game written in Node with React and DynamoDB on AWS
- Crafted an intuitive React front end, optimizing navigation with component-based architecture
- Implemented automated Python data pipeline to create and deploy database

Currency Converter
- Created Angular app with Bootstrap hosted on AWS to convert with real time exchange rates
- Asynchronously fetches exchange rates in JSON from cryptocompare.com's API

arm@ML
- Implemented RBF and MLP networks to approximate 5 variations of Rosenbrock
- Compared effectiveness of backpropagation, $(\frac{1}{4} + \lambda)$evolution strategy, Differential evolution, Genetic algorithm
- Clustered data with k-means clustering, DB-Scan, particle swarm, and ant-colony optimization
- Used multiple UCI datasets for each comparison, all code implemented in Java

IMDB Data Pipeline
- Imported imdb.com's data into custom MySQL database
- Created Naive Bayes and Quadratic Regression models with sklearn in Python to make predictions
- Found strong relationship correlating movie score and lead actors age

SKILLS

Skills: Python, Node.js, C#, Java, AWS, Azure, REST APIs, Ansible, AngularJS, JavaScript, Agile, Data Science, Development Operations (DevOps), Django, Docker, Google Cloud Platform, Gradle, Groovy, jQuery, Git, HTML/CSS, PowerShell, MySQL, NumPy, Postgres, RabbitMQ, SCRUM, Selenium, Tensorflow, Kubernetes, TypeScript, NoSQL, Data Structures & Algorithms, Data Analysis, FastAPI, Software Testing