Aaron McCarthy

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EXPERIENCE

Boeing   **Everett WA**
Programmer Analyst   2019 - present
- Optimized mission critical system that delivers software to airplanes
- Developed scaleable Virus Scanner microservice using RabbitMQ
- Gradleized monolithic application with multiple layers of nested projects, each with unique dependencies

TechLink   **Bozeman MT**
Software Engineer Intern   2017 - 2019
- Developed automated web/desktop application testing framework that wraps FlaUI and Selenium
- Wrote automated tests for software developed by the Department of Defense
- Collaborated with a software development team using GitLab's Kanban

EDUCATION

Montana State University   **Bozeman MT**
BS in Computer Science - GPA: 3.52   Graduated: 2018

PROJECTS

Currency Converter   2021
- Created Angular web app hosted on AWS that applies exchange rates to user inputs
- Asynchronously fetches exchange rates from exchangeratesapi.io

ListShare   2019
- Built a website using Django hosted on AWS
- Created interface with HTML/CSS, managing data with SQLite

Pizza Ranch Adventure   2018
- Created a side-scrolling game in Python using Pygame
- Implemented jumping mechanics, multiple music tracks, collision detection

PFL Order Submitter   2018
- Created WPF application that deserializes product information in JSON from PFL's API

Coinswap   2018
- Parsed cryptocurrency exchange rate info using shapeshift.io's API
- Designed an algorithm to find profitable exchange paths between cryptocurrencies

Machine Learning   2017
- Implemented PSO, K-means, DBscan, Genetic Algorithm, Evolution Strategy
- Trained Radial Basis Function and Sigmoidal Neural Networks using Back Prop
- Compared the performance of algorithms in formal scientific paper

IMDB Movie Data Analysis   2017
- Designed and created a database using MySQL to hold data from imdb.com
- Queried the database and analyzed data using sklearn, scipy, and plotly
- Used ML techniques to show interesting correlations in the data

KNOWLEDGE

- Languages: Java, C#, Python, JavaScript, HTML/CSS, XML, JSON, LaTeX
- Tools: Angular, Node.js, Git, GitLab, Linux
- Principals: Agile, Scrum, Kanban, TDD, Design Patterns, Unit Tests, Automation, UML
- Databases: SQL, MSSQL, SQLite, Entity Relationship Diagrams, Relational Algebra