Chris Newton, Software Developer

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LINKS

Github, LinkedIn

PROFILE

Motivated computer science graduate from University of Maryland with academic emphasis on algorithmic analysis, machine learning, and web design. Robust software engineering experience through coursework and personal projects.

SKILLS

- Java
- Javascript
- Python
- SQL
- Functional Programming
- Machine Learning Algorithms

EDUCATION

Dec 2023

B.S. in Computer Science, University of Maryland

College Park, MD

- Academic emphasis on data structures and algorithmic analysis
- Capstone coursework in applied statistics and machine learning algorithms
- Participated in Bitcamp 2023, the east coast's largest hackathon

EMPLOYMENT HISTORY

Aug 2021 — Dec 2023

Rec Center Staff Supervisor, University of Maryland

College Park, MD

- Supervised cohort of 4-6 staff across several rooms and buildings
- Responded to patrons' health emergencies (CPR/First Aid Certified)
- Provided assistance and advice to patrons

PROJECTS

File Zipper

- Implemented the Huffman Coding algorithm, the compression algorithm used in the major ZIP file formats, in Java
- Developed a proprietary schema for serialization and deserialization
- Built a fault-tolerant React UI using OOP design principles and unit testing Created Java GUI to read and write files to local machine with a user-friendly interface

Machine Learning from Scratch

- Implemented foundational machine learning algorithms in python using only numpy & pandas
- Demonstrated robust statistical knowledge with regression and classification algorithms including linear regression with gradient boosting, random forest, K-means clustering, and AdaBoost

D.C. Metrorail Data Analysis & Modeling

- Collected City of D.C. and NOAA data through API requests and web scraping
- Analyzed and visualized trends and relationships in ridership, on-time performance, safety incidence, and more using pandas and scikit-learn
- Developed and tuned XGBoost (a gradient-boosted linear regression model library) to predict daily ridership to r2 value > 0.6 despite the noisy dataset