Dagmawe Amare Haileslassie

Chicago, IL · Dag.haileslassie@gmail.com · 507-321-3871 · https://github.com/hailes1

Education

St. Olaf College — Northfield, MN
BA | Major: Computer Science and Mathematics — Sep 2018 - May 2022
Relevant Coursework - CS: Algorithms and Data Structures, Algorithms in Decision Making, AI, Operating Sys., Hardware Design and Software Design
Awards: Dean's list (2020, 2021, 2022), Best Man-Machine Team: International Aerial Robotics Competition

Professional Experience

Associate Software Engineer, *Morningstar, Inc.* — June 2023 - Present
Chicago, IL

- Developed a Python-based backend to fetch, clean, and batch Morningstar research articles and data, with status tracking in a PostgreSQL database.
- Contributed to building front end development that are directly client facing.
- Developed and maintained Morningstar PDF reports using Java, Spring Boot, XML and Itext 7 library; more specifically addressing design and data issues for 7 different types of equity and fund reports.
- Improved unit test coverage of the Morningstar Reporting solutions code base by solving critical and blocker security issues; Which decreased the vulnerability grading percentage by 10 pts.
- Created and automated daily and monthly batch data deliverables (transferring 100,000+ equity and fund reports) to clients, utilizing Java and AWS S3 bucket for data collection and storage.

Research and Internship Experience

Software Design Teaching Assistant, *St. Olaf College* — Feb 2021 - May 2021
Instructor: Dr. Olaf Hall-Holt

- Graded assignments and held TA sessions to equip students with an introduction to the structure and creation of computer software, using the C++ programming language and emphasizing object-oriented programming and structured collaborative software-development methodology.

Robotics Research Assistant, *St. Olaf College* — June 2020 - August 2020
Collaborative Undergraduate Research and Inquiry, Advisor: Dr. Elizabeth Jensen

- Conducted experiments that measures levels of communication in Multi-Robot systems using wireless ad-hoc mesh networks (B.A.T.M.A.N. interface).
- Co-Authored a poster and paper on the effects of interference on multi-robot exploration.

Relevant Projects: (Reference: https://github.com/hailes1)

Morningstar Playfair: ChartBot: Collaborated on a tool that utilizes ChatGPT alongside the Morningstar Playfair API to visualize any chartable data based on a user input. I am working on a circular packing data visualization chart using vue.js, D3, JavaScript, HTML and CSS.
Plant Disease Identifier: Developed a Machine Learning model that identifies Powdery Mildew using image recognition by training a CNN(LeNet Architecture) on pre collected images.
MNIST Digit Classification: Created end-to-end classifiers and models (Using simple decision making algorithms: KNN, Random Forest, Decision Trees and CNN) that distinguishes handwritten digits.

Skills

Languages: Python, C++, C, Java, JavaScript, R, Mathematica, vue, HTML, CSS
Tools: Agile, Docker, Git, PostgreSQL, Jenkins, Adobe Illustrator, Transformer models, AWS, D3

Pending Publications

Haileslassie, D. , Maya Arakaki, Ethan Kilmer, and Yuzi Mi. "Combinatorial Interpretation of q-Fibonacci Numbers and q,p-Jacobsthal Numbers." DIR, St. Olaf College, Northfield, MN. May 2022
Haileslassie, D. , Moran, H., Daly, S. "The Effects of Interference on Multi-Robot Exploration."

Service

Data Analyst Volunteer: Ethiopian Gov't COVID-19 Response