Amiri Hayes

Mathematics Researcher / Software Engineer

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EDUCATION:

New Jersey Institute of Technology — Sep 2023 - May 2026
B.S. Applied Math & M.S. Artificial Intelligence — Grade: 3.90/4
Honors Student w/ Full Merit Scholarship in BS/MS Program

Rowan College of South Jersey - Gloucester — Sep 2021 - May 2023
A.S. Physics, A.S. Mathematics, A.S. Computer Science — Grade: 3.95/4

SKILLS:

Languages (Python, Javascript, C++/C, SQL, R, Java)
Database (Spark, BigQuery, MongoDB, Postgres)
Frontend (React, HTML, CSS, Flutter, Bootstrap)
General (Excel/Sheets, Linux, Docker, Cloud: AWS & GCP)
Machine Learning (Tensorflow, Pandas, Numpy, SciKit)
Backend (Node, Express, Django, NextJS, Netlify)

WORK EXPERIENCE:

United Parcel Service Business Rule Engine Team — **NYC Metro Area**
SOFTWARE ENGINEERING CO-OP, NOV 2023 - APR 2024

- Collaborated with many developers in globally distributed team executing UPS business rules in Java and Eclipse
- Wrote code + used a decision governance framework to outline & test business rules before pushing to production
- Engaged in continual improvement initiatives by participating in code reviews & documenting rule specifications

RESEARCH EXPERIENCE:

Institute for Pure & Applied Mathematics, UCLA — **Los Angeles, CA**
MATHEMATICS RESEARCHER, JUN 2024 - AUG 2024

- Incoming Summer 2024 Researcher in Applied Mathematics at the Institute for Pure & Applied Math at UCLA

Center for Applied Mathematics & Statistics, NJIT — **Newark, NJ**
STUDENT RESEARCHER, SEP 2022 - JAN 2024 — Preprint

- Submitted independent research rating transportation mode viabilities for any U.S. city in Python for publication
- Implemented data collection pipeline & custom mathematical model, educated myself on ML for frequency data
- Related Certifications: Stanford Deep Learning Specialization, Google Data Analytics, AWS Cloud Practitioner

Governor's School Of Engineering & Technology, Rutgers — **New Brunswick, NJ**
STUDENT RESEARCHER, JUN 2022 - AUG 2022 — Publication

- Completed four-week research project at Rutgers University proving the efficiency of amorphous aircraft design
- Developed scripts in MATLAB for data collection and to calculate fuel efficiency and aerodynamic coefficients
- Accepted to MIT and Rutgers symposiums to present research and demonstrate our prototype and simulations

SELECTED PROJECTS:

Aspire 4 Transport | ***www.aspire4transport.org***
Python / PyTorch / React / Postgres / Express
ML project that automates collecting information and uses deep learning to rate transportation methods for US cities.

Cash Flow Coalition | ***www.cashflowinvesting.net***
AWS / HTML / CSS / Javascript
Homepage for CFCIC, the Investment Club I co-founded. Allows members to login to see their investing information.

Hayes Quotes | ***www.hayesquotes.net***
MongoDB / Express / React / NodeJS
Website that allows friends and family to share their favorite quotes online easily and securely.