

Shaquille Pearson

Email LinkedIn Portfolio

SUMMARY

Recent graduate with **3 years** of experience in software engineering, specializing in scalable **data pipelines**, **reproducible CI/CD workflows**, and **API development**. Proficient in **Python and Javascript**, **FastAPI**, and **Docker**. Strong background in networking, database optimization, and performance tuning across academic and industry projects.

EDUCATION

- **University of Waterloo** Waterloo, ON
Master of Mathematics in Computer Science (GPA 86.57/100.00) *Jan. 2023 – Dec. 2024*
- **St. Georges University** St. George's, Grenada
Bachelor of Science in Information Technology (GPA 3.60/4.00) *Jan. 2018 – Dec. 2021*

EXPERIENCE

- **The Software REBELs (Ranked 9th Worldwide)** Waterloo, ON
Graduate Research Assistant *Jan 2023 - Dec 2024*
 - **Data Pipeline:** Designed and built a data filtration pipeline with **Python** and **GitHub APIs** that processed over **1.27 million open-source** projects.
 - **Build Reproduction:** Led efforts to create reproducible build environments for **982 builds** in the **NPM** ecosystem using **Docker**, **Python**, **GitHub Actions** and **YML** files.
 - **API Development:** Built a REST API using **FastAPI**, **Python**, and **Docker** to interface with the reproducible build environment, Automating dependency resolution and build validation for NPM projects.
- **University of Waterloo** Waterloo, ON
Instructional Apprentice / Teaching Assistant *Jan. 2023 – Dec. 2024*
 - **CS 116 (Introduction to Python Programming) & CS 135 (Functional Programming with Racket):** Taught core programming concepts, recursion, and algorithmic analysis through tutorials and student support.
 - **SE 212 (Logic and Computation) & CS 251 (Computer Organization and Design):** Provided guidance on formal logic, proof systems, digital circuits, and processor design through labs and office hours.
 - **CS 246 (Object-Oriented Programming in C++):** Reinforced object-oriented programming, memory management, and debugging practices via tutorials and code reviews.
- **Department of Public Information** Georgetown, Guyana
Junior Software Developer *January 2022 - December 2023*
 - **Content Automation:** Developed an automation system using **Node.js** and the **Axios** library to interact with the DPI website's **REST** CMS API, enabling automatic updates for news articles and press releases etc.
 - **Frontend Enhancements & UI Optimization:** Improved website performance and responsiveness by refactoring **React.js** components and optimizing **CSS** animations, enhancing page load speed and accessibility.
 - **Backend Performance Optimization:** Refactored **MySQL** database schemas to reduce redundancy and improve query efficiency, implementing **B-Tree** indexing on high-traffic tables, which optimized backend performance and reduced query response times by **13%**.

PROGRAMMING SKILLS

- **Languages & Tools:** Python, JavaScript, TypeScript, C++, SQL, Cypher, Git, Docker, GitHub (REST, GraphQL, Actions)
- **Frameworks & Libraries:** React, React Native, Express.js, PyTorch, Django, Hugging Face
- **Databases:** MySQL, KuzuDB, Firebase, Neo4j, MongoDB