Nelson Rodriguez

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EDUCATION

Georgia Institute of Technology

Atlanta, GA

Bachelor of Science in Computer Science

Graduated: December 2023

- Relevant Coursework: Data Structures and Algorithms, Design and Analysis of Algorithms, Database Systems, Software Engineering, Linear Algebra, Object-Oriented Programming, Networking, Computer Architecture
- Concentrations: Information Networks & Media Applications

Projects

eKlozet — Sustainable Fashion Mobile App | Swift, SQL, Xcode

August 2022 - December 2022

- Developed a sustainable fashion iOS mobile app with team of student developers utilizing Agile methodology
- Designed initial fashion screening functionality in Swift and developed an algorithm for outfit recommendations
- Implemented SQL database integration to facilitate user authentication and clothing storage functionality, enhancing the application's ability to dynamically present clothing items tailored to 5000+ surveyed users
- Won 2nd place in the Fall 2022 Georgia Tech CS Junior Design Capstone Expo out of 30+ teams

Nexus — Blogging Web App | React, Node.js/Express.js, MongoDB

August 2022 - December 2022

- Utilized React Hooks and Context API for state management, ensuring efficient data flow and page rendering
- Leveraged Express.js/Node.js and MongoDB to create REST API that facilitates data fetching and post operations
- Optimized performance by reducing page load time, employing efficient data fetching with Axios + React Hooks
- Implemented secure user authentication using bcrypt algorithm for salting + hashing and MongoDB for storage

Running Sonification Engine | Java, Processing

June 2023 - July 2023

- Designed and developed a running sonification simulator that dynamically sonifies a user's cadence, heart rate, and other physical attributes based on continuous sensor data to convert data streams and output helpful sonifications
- Achieved a 75% increase in runner performance measured by responses to engine performance in research analysis

Hypertension and Stroke Analysis | Python, NumPy, Jupyter Notebook

April 2023 - May 2023

• Researched hypertension and stroke data sets using Jupyter Notebook and NumPy for numerical operations and used Matplotlib and pandas Python libraries in order to analyze and visualize the level of correlation between diabetes, hypertension, and stroke for medical research measured by achieving a correlation coefficient of 0.84

Personal Portfolio Website | React, JavaScript, HTML/CSS

June 2023

- Developed a visually appealing personal portfolio web page with React, HTML/CSS, and JavaScript functions
- Designed and implemented dynamic text and page animations using AnimeJS library and SVG/vector functions
 and built an intuitive UI utilizing React design principles and reusable code practices for optimal efficiency

LEADERSHIP & EXPERIENCE

GT WebDev Atlanta, GA

Georgia Tech Student Organization Member

August 2021 - Present

- Demonstrated strong teamwork and communication skills by contributing to cross-functional teams in developing features on collaborative web application for HackGT, ensuring timely completion and effective communication
- Organized and hosted multiple developer workshops and seminars, measured by a 50% increase in attendance
- Proficiently used Git to manage code versioning and collaborated with team members on several club projects

Target Retail Associate

Buford, GA

 $Retail\ Associate$

November 2019 - January 2020

- Processed inventory efficiently, verified quantities, and updated inventory records to facilitate accurate stock levels
- Conducted inventory audits to identify discrepancies, taking corrective action to maintain inventory accuracy
- Maintained extensive knowledge of product offerings, effectively assisting 100+ customers per shift with inquiries

TECHNICAL SKILLS

Languages & Frameworks: Java, JavaScript, React, Swift, Python, HTML/CSS, C, Assembly, SQL/SQLite Developer Tools: Git/GitHub Desktop, GitHub Copilot, CLI/Terminal, Jira, VS Code, LATEX, Processing, Xcode Organizations & Activities: GT WebDev, GT Design Club, JSA, Football/Soccer, Running, Resistance Training Natural Languages: English (Native), Spanish (Fluent), Japanese (Basic/Conversational)