

# 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, Intro to Software Engineering, Object-Oriented Programming, Systems and Networks, Computer Architecture
- Concentrations in Information Networks & Media Applications

## PROJECTS

### eKlozet - Sustainable Fashion Mobile App | *Swift, SQL, Xcode*

August 2022 - December 2022

- Developed a sustainable fashion iOS mobile application in a team of 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 2<sup>nd</sup> place in the Fall 2022 Georgia Tech CS Junior Design Capstone Expo out of 30+ teams

### 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

### 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, 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

### Tower Defense Game | *Java, JavaFX*

August 2021 - December 2021

- Developed a tower defense game as a semester-long team project for Objects and Design class at Georgia Tech
- Programmed user controls and AI functionality, effectively leveraging JavaFX to enhance gameplay dynamics

### Airline Booking Database | *SQL/MySQL*

August 2021 - December 2021

- Created and meticulously structured a fully functional SQL airline booking database as a culminating project for a Database Systems course at Georgia Tech, adhering to a predefined relational schema and stringent constraints

## 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 10+ web development workshops and seminars, measured by a 50% increase in attendance
- Proficiently used Git to manage code versioning and collaborated with team members on several group 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, CLI/Terminal, Jira, MySQL, 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)