John Ross

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Education

University of Texas-Rio Grande Valley, Edinburg, TX **G.P.A-3.71**
Bachelor of Science in Computer Science, Minor in Applied Mathematics *Aug. 2023 – May. 2025*

Lone Star College, Houston, TX **GPA-3.1**
Associate's in Liberal Arts *Aug. 2022 – May 2023*

Relevant Coursework: Data Structures & Algorithms, Computer Architecture, Discrete Math, Linear Algebra, Programming fundamentals, Object-Oriented Programming in Python, Programming in Unix/Linux

Technical Skills

Languages: C++, Python, SQL, Java, C#, JavaScript, HTML/CSS, MatLab, Rust, Haskell, Ada,
Frameworks: Django, React, Node.js, Express, Flask, JUnit, WordPress, Material-UI, FastAPI
Machine Learning & AI: PyTorch, TensorFlow, OpenCV, NumPy, Scikit-Learn, MONAI, U-NET

Student clubs: IEEE(Institute of Electrical and Electronics Engineers)

- IEEE Xtreme 18.0 Global Programming Competition, Ranked 12th in the United States.
- Competed in a 24-hour global hackathon, solving complex programming challenges as part of "The Bits" team.

Experience

DSV- *Los Indios, TX, General Warehouse Associate | July 2024-September 2024*

- Operate forklifts and pallet jacks to move inventory and maintain organized storage areas.
- Assist in unloading trucks, receiving shipments, and updating inventory records.

Senture, LLC – *McAllen, TX Help Desk Tech | August 2023 – January 2024*

- Provided technical support to clients, resolving hardware and software issues.
- Assisted in troubleshooting network problems and setting up new workstations.
- Documented support requests and resolutions to improve future service.

Projects

AI-Driven Skin Lesion Segmentation
Tech Stack: Python, PyTorch, MONAI, OpenCV, NumPy

- Developed an AI-powered deep learning model for medical image segmentation, identifying and delineating skin lesions from the ISIC Archive dataset.
- Implemented a U-Net architecture for medical imaging using MONAI's AI-driven segmentation tools and PyTorch.
- Applied Dice Loss optimization to enhance model generalization and segmentation accuracy.
- Leveraged GPU computing to improve performance, achieving a target accuracy of 95%+ Dice Score.

Stock Trading Application (Similar to Robinhood)
Tech Stack: C++, React, Node.js, Express, MongoDB

- Integrated Alpaca API for real-time stock price updates, historical analysis, and trading functionalities.
- Implemented core trading logic in C++, optimizing performance and execution speed for financial transactions.
- Built and managed user authentication, portfolio management, and transaction history tracking.

Expense Tracker Application
Tech Stack: Django, Python, SQLite, JavaScript, HTML/CSS

- Developed a personal finance web application enabling users to track income, expenses, and monthly budgets.
- Implemented secure user authentication with email verification, allowing users to register, verify via email, and log in.
- Enhanced security by utilizing environment variables to hide sensitive credentials (e.g., SMTP and secret keys).