Shane Ross

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Education Fisher College

Bachelor of Science in Computer Science Concentration: Software Engineering 12/2025 (Expected) GPA: 3.4

Experience: Software Engineering Tutor

Fisher College

- Provided one on one and group tutoring for students in C++, HTML, Java, and SQL.
- Assisted students in debugging code, understanding code, and applying software development principles.
- Explained coding exercises to reinforce key concepts and student understanding.

Projects Endless Winter Runner Game - Link

- Developed an endless runner game in Unity using C# with a winter themed environment and procedural level generation
- Implemented player movement, obstacle avoidance, and collectable ornaments as the primary scoring mechanism.
- Designed a system for procedural terrain generation, adding new sections every 4 seconds for infinite gameplay.
- Integrated a backend using LootLocker API to handle user authentication and leaderboard data storage.
- Deployed the API on LootLocker and hosted the game and leaderboard in Unity built thru WebGL on Netlify for accessibility.

Leukemia Diagnosis AI – Link

- Developed a deep learning model using Python, TensorFlow, and scikit-learn to classify leukemia based on medical data.
- Preprocessed dataset using Pandas and applied StandardScaler() for feature normalization.
- Designed a 512-512-1 neural network with ReLU activation, dropout regularization, and L2 regularization, achieving 85% accuracy.
- Implemented binary cross-entropy loss, Adam optimizer, and early stopping to optimize model performance.
- Evaluated results using confusion matrix and classification report, ensuring model reliability.
- Hosted on GitHub, including dataset, code, and documentation for reproducibility.

Retail Database

- Designed and implemented a relational database for retail operations using MySQL.
- Structured six interrelated tables to manage customers, employees, sales, suppliers, and products.
- Developed SQL queries, joins, and transactions to retrieve sales reports and customer purchase histories.
- Utilized foreign keys and normalization to ensure data integrity and avoid redundancy.
- Implemented CRUD operations (INSERT, UPDATE, DELETE, SELECT) to manage retail transactions efficiently.

Skills Languages & Frameworks: C#, C++, Python, Java, JavaScript, CSS, HTML, SQL, Node.js, Express.js Development & Database Tools: MySQL Workbench, Visual Studio Code, Unity, Unreal Engine 5. Version Control & Cloud Platforms: GitHub, Git, Heroku