Shane Ross

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Portfolio | Link
GitHub | Link

Education

Fisher College **12/2025 (Expected)**
Bachelor of Science in Computer Science
Concentration: Software Engineering

Experience:

Software Engineering Tutor
Fisher College
- Tutored 30+ students in C++, HTML, Java, and SQL through 1:1 and group sessions.
- Helped reduce assignment error rates by identifying logic bugs and improving code structure.
- Reinforced core concepts in OOP, data structures, and database logic using real-world examples.

Project Manager Internship
Audio Engine
- Embedded multimedia assets (graphics/videos) into the company website using HTML and CMS tools, ensuring responsive and properly linked content.
- Managed and automated bulk email campaigns and social media posts using third-party SaaS tools, integrating custom media assets and coordinating delivery across platforms like Facebook, Instagram, and email lists.

Arcade Technician
Andretti Indoor Karting and Games
- Troubleshoot, repair, and maintain arcade game systems, simulators, and AV equipment including projectors, control panels, and VR setups.
- Perform preventative maintenance and system diagnostics using volt/ohmmeters, soldering tools, and schematic diagrams.
- Conduct hardware-level diagnostics and basic troubleshooting of computer systems, peripherals, and embedded hardware components.
- Update and manage firmware or system settings to ensure game system reliability.
- Assisted in supporting the digital infrastructure of the arcade floor, ensuring real-time system performance and minimal downtime.

Projects

Endless Winter Runner Game - Link
- Developed an endless runner game in Unity using C# with procedural terrain generation.
- Implemented player movement, obstacle avoidance, and collectable ornaments for scoring.
- Added new terrain sections every 4 seconds to ensure infinite gameplay.
- Built full-stack backend with LootLocker for account management and real-time global leaderboard.
- Deployed on Netlify using Unity WebGL build.

Leukemia Diagnosis AI – Link
- Developed a neural network using Kaggle medical data, using Python, TensorFlow, and scikit-learn to classify leukemia based on 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.
- Simulated real-world scenarios such as generating weekly sales reports.

Skills

Languages: C#, C++, Python, Java, JavaScript, SQL, HTML, CSS
Frameworks & Libraries: Node.js, Express.js, TensorFlow, scikit-learn
Tools & Platforms: Unity, Unreal Engine 5, MySQL Workbench, VS Code, GitHub, Heroku, WordPress
APIs & Other: LootLocker API, WebGL, RESTful APIs