Alan M. Tommy

U.S. citizen | (586) 675-9696 | atommy@umich.edu | https://www.linkedin.com/in/alan-tommy/

EDUCATION

University of Michigan Ann Arbor – College of Engineering
Bachelor of Science in Engineering, Computer Science - May 2025
GPA: 3.736

Key Courses
Introduction to Operating Systems, Computer Game Design and Development, Web Systems, Introduction to Machine Learning, Software Engineering, Introduction to Computer Security, Data Structures and Algorithms, Statistics and Artificial Intelligence, Programming Paradigms, Data Analytics Tools and Techniques

EXPERIENCE

University of Michigan ROTC – Wargame Digitalization Team (JAWS) Intern **June 2025 – January 2026**

- Worked in a team to develop a first-of-its-kind digital interface for a strategic military simulation.
- Implemented PostgreSQL database, Django backend, Redis WebSockets, and user authentication/authorization.
- Application has been demonstrated to successfully support **over 100 concurrent users and is being used to train and evaluate future officers** from the Army, Navy, Marine Corps, Air Force, and Space Force.

Michigan Data Science Team – Mining & Analyzing Reddit Team Member **August 2024 – December 2024**

- Collected and processed data from Reddit to analyze sentiment in posts and comments.
- Trained a machine learning model to classify sentiment and measure intensity with up to 90% accuracy.
- Extracted insights from data to understand online discourse trends and engagement, and presented findings.

PROJECTS AND COMPETITIONS

Final Fumes – Procedurally Generated 3D Video Game (EECS 494) **February 2025 – April 2025**

- Developed a fully-fledged video game in Unity on a 4-person team within an 8-week Agile development cycle.
- Devised a procedural generation algorithm inspired by graph-based algorithms to spawn terrain while ensuring logical road connectivity.
- Created 3D models and optimized mesh complexity to maintain performance.
- Showcased to live players; received overwhelmingly positive feedback, placing **4th among 20+ teams**.

Multi-Threaded Network File Server (EECS 482) **November 2024 – December 2024**

- Built a crash-consistent, multi-threaded network file server in C++ using Boost and TCP sockets.
- Utilized reader-writer locking to prevent race conditions while allowing concurrent reads.

Michigan Ross Business+Tech Datathon **February 2024**

- Collaborated with a 6-person team to analyze large carbon emissions datasets using Python (pandas, NumPy).
- Designed an environmentally and economically sustainable product in accordance with findings.
- Effectively communicated the product proposal to a panel of judges, placing **1st among 40+ teams**.

SKILLS

Programming Languages: C++, C, Python, SQL, JavaScript, Visual Basic, C#, R, MATLAB
Tools & Frameworks: Unity, GitHub, Vim, TensorFlow, scikit-learn, Figma, Jira
Software & Systems: Linux/Unix, multithreaded programming, Agile development
Machine Learning: Model tuning, data preprocessing, feature engineering