

Arjun Sehgal

+1-248-533-4814 • asehgal@umich.edu • passivetomb1.github.io

Education

University of Michigan Bachelor of Science in Computer Science GPA: 3.65	Ann Arbor, MI Expected Graduation Year: 2027
---	---

Relevant Courses

• EECS 203 - Discrete Math	F24
• EECS 280 - C++ Programming and Introductory Data Structures	F24
• EECS 281 - Data Structures and Algorithms	W25
• MATH 116 - Calculus II	F24
• MATH 214 - Applied Linear Algebra	W25
• STATS 250 - Statistics and Data Analysis	W25

Course Projects

Euchre Simulator

- Simulated the card game “Euchre” in C++ using Object-Oriented Programming principles.
- Designed and implemented classes for players, cards, and the game deck to model real-world scenarios.
- Applied inheritance and polymorphism to enhance code reusability and maintainability.

Text Editor

- Created a command line text editor.
- Implemented linked lists and iterators to traverse rows and columns of the text.

Personal Projects

Self-Driving Car Simulator

- Developed a convolutional neural network using TensorFlow and Keras to predict steering angles based on input images.
- Preprocessed track data to train the regression model.
- Gained experience in neural network architecture and performance optimization.

Facial Recognition Password Manager

- Trained a convolutional neural network to recognize faces and unlock a password manager linked to the detected identity.
- Developed the password manager using C++ and integrated it with a TensorFlow-based recognition system.
- Integrated classes to manage user data securely, including encryption methods.

Personal Portfolio Website

- Created a responsive portfolio website using HTML, CSS, and JavaScript to showcase personal projects and skills.
- Focused on UI/UX design to ensure an intuitive and visually appealing user experience.

Technical Skills

- Programming Languages:** Python, C++, JavaScript, SQL
- Frameworks & Libraries:** TensorFlow, OpenCV
- Development Tools & Platforms:** Docker, Git, Linux
- Business Tools & Platforms:** Power Automate, Power BI, MS Office
- Core Skills:** Object-Oriented Programming, Neural Networks, Data Preprocessing