

Zayyan Naveed

203-654-5340 | zayyan.naveed@yale.edu | [linkedin.com/in/zayyannaveed](https://www.linkedin.com/in/zayyannaveed) | zayyannaveed.com

EDUCATION

Yale University

Expected Graduation: May 2025

Bachelor of Science in Computer Science. **GPA: 3.99/4.0**

New Haven, CT

- Relevant Coursework: Data Structures, Algorithms, Systems Programming, Artificial Intelligence, Object-Oriented Programming, Full Stack Web Development, Machine Learning, Deep Learning, Computer Vision, Database Systems

EXPERIENCE

Software Engineer Intern

Jun 2024 – Aug 2024

EQT Investment Group

New York, NY

- Developed multi-threaded Python scripts for web scraping horse racing data, increasing data extraction **efficiency by 200%**.
- Designed and deployed a scalable SQL relational database on Microsoft Azure, automating data pipeline and managing over **1 million records** with cloud services.
- Boosted betting **prediction accuracy by 15%** through feature engineering and neural network optimization.

Software Engineer Intern

Jan 2024 – Feb 2024

Structify

New York, NY

- Developed and integrated a LLM ranking algorithm into the API pipeline, improving information retrieval accuracy by 27%.
- Accelerated the ranking process with an embedding model and principal component analysis, achieving sorting of **10 million** nodes in **under 10 minutes** with minimum accuracy loss.
- Tested and validated the algorithm across diverse LLM models and user scenarios, resulting in **20% reduction** in error rates.

Teaching Assistant

Jan 2023 – Dec 2023

Yale University Computer Science Department

New Haven, CT

- Collaborated with course faculty for 'Introduction to Computer Science' course, facilitating learning for **150+ students**.
- Mentored students through **10 +** weekly one-on-one office hours to help debug homework assignments in Racket.
- Led monthly review sessions and designed **100+ slide** presentations to explain topics spanning Functional Programming, Turing Machines, Boolean Algebra, and Computer Architecture.

Software Engineer Intern

Jun 2023 – Aug 2023

ISB Global

London, UK

- Partnered with the IoT team to create a smart trash can proof of concept using ultrasonic sensors, Node MCU micro-controllers and AWS IoT services, achieving a **22% reduction** in waste overloading.
- Trained a waste classification CNN model to sort waste into categories, reaching **85% accuracy**.
- Built a waste tracking frontend dashboard in Outsystems; merged HERE Maps API through JavaScript to deliver live routing, location, and status updates on a map interface, enhancing user experience and operational **efficiency by 14%**.

PROJECTS

Badminton Image Generation | Pytorch, OpenPose, Hugging Face

Apr 2024 – May 2024

- Fine-tuned open source stable diffusion model using ControlNet, generating **500+** different badminton poses.
- Combined LoRA weight training with ControlNet pipeline via a custom Hugging Face Diffusers script.

Hole in the Wall Game | JavaScript, Phaser

Apr 2023 – May 2023

- Programmed a motion sensor game using Microsoft Azure Kinect to improve mental wellness of **1200+** students.

Lost and Found Application | Flask, Python, SQLite, React, Javascript

Jan 2023 – Apr 2023

- Led a team of 4 student developers to create a campus lost and found application for **2000+** community members; incorporated Yale CAS API in backend for user authentication and data integration.

SKILLS

- **Languages:** Python, C/C++, JavaScript, SQL (MySQL, PostgreSQL), HTML/CSS, Rust, Typescript
- **Frameworks and Libraries:** React, Next.js, Node.js, Flask, PyTorch, NumPy, OpenCV, Selenium
- **Tools and Technologies:** Git/ GitHub, AWS, OutSystems, MongoDB, Unix, Linux, Jira, Firebase, Jenkins, Docker