Aayush Agnihotri

aayush-agnihotri.github.io

aa2328@cornell.edu
908.922.9055
linkedin.com/in/aayush-agnihotri

Education

Cornell University — Ithaca, New York
Bachelor of Arts in Computer Science — GPA: 3.94 — August 2022 - May 2026
Relevant Coursework: Object-Oriented Programming and Data Structures, Java Programming, Intro to Backend Development, Discrete Structures

Saint Joseph High School — Metuchen, New Jersey
Valedictorian — GPA: 4.0 — September 2018 - May 2022
Extracurriculars: Technology Student Association (TSA) (Founder and President), Robotics (Co-Captain), Model United Nations (President), Youth and Government (President), Mock Trial (Co-Founder)

Experience

Cornell University — Ithaca, New York
Nexus Software Engineer — September 2022 - Present

- Design and implement fullstack GUI application with React frontend and Node backend in Express to remotely update autonomous robot state and display sensor data
- Create field visualization software with NumPy and Pygame to simulate traversal algorithms and finite-state machine paths

Aziton — South Plainfield, New Jersey
Full Stack Software Engineer — June 2019 - Present

- Build web applications to address community needs with 1.2+ million page views and $1,000+ in profits
- Implement search engine optimization and color theory techniques to increase traffic and website ranking
- Develop music recommendation engine in React over Spotify's REST API and OAuth 2.0 framework

Rutgers WINLAB/Liberty Science Center — New Brunswick, New Jersey
Research Internship — May 2021 - August 2021

- Researched, built, and trained virtual and physical autonomous self-driving vehicles via Robot Operating System and utilized Gazebo as a virtual test bed environment. Demo-ed at symposium
- Implemented machine learning algorithms for self-driving behavior through a 4-layer convolutional neural network and incorporated sensor feeds for remote experimentation

Rutgers University — New Brunswick, New Jersey
Researcher — May 2020 - July 2020

- Researched Polynomiography – the science of visualizing polynomials – and numerical analysis algorithms
- Documented Java off-heap memory allocator algorithm, analyzed results and its implementation
- Benchmarked browser memory processes to reduce resource consumption and improve performance

Awards and Certifications

JPMorgan Chase Software Engineering Virtual Experience Certification — 2022

JPMorgan Chase 2x First Place Winner at Technology for Social Good — 2018, 2021

TSA First Place Winner at State, Third Place Winner at National Software Development — 2021

Qualifications

Languages: Java, JavaScript, Python, SQL
Frameworks: React, Flask, Express/Node, Bootstrap, Docker
Web and Databases: HTML, CSS, MySQL, Airtable
Developer Tools: IntelliJ, VSCode, Git, Postman