Arnav Revankar

Junior Computer Engineer @ NJIT

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Summary

Highly motivated Computer Engineering student with a strong passion for Embedded Systems, Data Science and Machine Learning. Seeking an internship/coop opportunity to apply my skills and gain experience with real world engineering. Proficient in C, C++, Java, and Python, circuit design/simulation with KiCAD, as well as popular linear algebra and machine learning frameworks like NumPy, PyTorch, and Scikit Learn. Eager to contribute to innovative projects and gain hands-on experience in real world engineering.

Education

New Jersey Institute of Technology (Sept 2023 - Present) Cumulative GPA: 3.65

BS Computer Engineering, Minor in Data Analytics Newark, NJ

- **Coursework:** Circuits and Systems 1 & 2, Microprocessors, Computer Architecture, Database System Design, Digital Design, and others.
- **Activities:** NJIT Solar Car Club (Software Team)

County College of Morris (Sept 2022 - May 2023) Cumulative GPA: 3.83

Challenger Program for High School Students Randolph, NJ

- Completed over two semesters as a part-time student.

Experience

SWE Intern March 2025 - August 2025

Mathnasium Chatham, NJ

- Spearheaded a project developing a full-stack Javascript/Node.js application that generates emails for parents of students at a Math Tutoring Center I work for.
- Effectively employs a BNF Grammar, that is used to generate syntactically valid text from a set of customizable templates.
- Was working on a Node.js backend that'll retrieve student information, further reducing required user input.
- Currently being used to send 110-150 emails per day, saving 5 centers 30-40 hours a week.

Skills

- **Languages:** C, C++, Java, Javascript, Python, SQL (MySQL), MATLAB, GNU Octave, HDL, LaTeX
- **Software Tools:** KiCAD, FreeCAD, PlatformIO, Excel, Git
- **Build Tools/Debuggers:** Apache Maven, Apache Ant, CMake, Make, MSVC & GCC, GDB, Valgrind
- **Libraries:** NumPy, PyTorch, Scikit Learn, Matplotlib, Gnuplot, LWJGL (GLFW)

Projects

Sound Based Triangulation July 2025 - Present

- Currently working on a short distance sound based triangulation system.
- Designed a custom PCB using KiCAD to amplify, filter, and sample incoming signals.
- Signal Processing will be performed on an ESP32 S3 MCU.

NeuralNet (Github) Oct 2024 - Feb 2025

- Fully-Connected Neural Network Library for Regression and Classification in C.
- A pet project to learn Machine Learning algorithms (minimal external libraries used).
- Backpropagation using Stochastic Gradient Descent in Matrix form.

Collision Avoidance System for Cars Sept 2023 - Jan 2024

- Accelerometer based system that detects hard braking and alerts surrounding drivers accordingly using hazard lights.
- Utilized an Arduino Nano Microcontroller board to handle IO.
- Presented in NJIT's First Year Design showcase.