Aneesh Maganti

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EDUCATION

New York University, Tandon School of Engineering, Brooklyn, NY	May 2024
Bachelor of Science, Major in Computer Science, Minor in Mathematics	GPA: 3.70

Relevant Courses: Machine Learning, Software Engineering, Databases, Algorithms, Operating Systems

SKILLS

Languages	C++, Javascript, Python, Bash, C#, Java, Go
Frameworks/Libraries/OS	SDL, Qt, React, Node.js, PostgreSQL, Docker, Windows, Linux

EXPERIENCE

MarketFusion, *Software Engineering Intern* — July 2022 - Present
- Rewrote React registration pages and user-creation process, sending server requests via the Axios library to the internal MySQL database, allowing for creation of multiple user accounts.
- Revamped the login authentication system by implementing password strength checks and verification client-side via regex and server-side to ensure the security of the website.

Corelink High-Speed Research Network, *Academic Researcher* — Sep 2021 - Present
- Implemented a UDP network packet splitter to enable researchers to bypass Corelink's MTU limit from 20000 to 64000 bytes, increasing maximum throughput by 220%
- Coordinated students within my team, assisting them with management of projects and checking meeting attendance
- Researched Corelink's network architecture and RDMA (Remote Direct Memory Access)/InfiniBand protocol and ran memory tests to determine the protocol's effectiveness for NYU researchers

Monarc, Dallas, TX, *Software Engineering Intern* — Aug 2021 - Jan 2022
- Applied MVVM principles to develop ball-throw pages, allowing users to modify the thrown football speed/location
- Devised error checks and boot logging to enable remote debugging, improving the stability of the Seeker machine

PROJECTS

Chip8 Interpreter/Emulator — August 2022
- Designed interpreter for Chip8 platform by emulating all 35 standard opcodes and its specifications (registers, memory, timers), allowing Chip8 programs to run on an x86 platform
- Wrote separate disassembler to obtain assembly instructions from program binary data, assisting with development
- Employed SDL library to write graphics renderer using SDL textures and handle user input

Alzheimer MRI Detection — May 2022
- Developed classification machine learning algorithm to sort preprocessed set of Alzheimer MRI images.
- Tested using Sklearn library with three models - a logistic regression, support vector machine and convolutional neural network - with varying levels of regularization to determine which had the greatest accuracy

bkRoad - Amazon Lightsail Containers Hackathon - Overall 2nd Place — March 2022
- Wrote Next.js application that allowed users to discover books, learn details about them, and loan them.
- Handled connections to SQL Amazon DynamoDB and hosted on Amazon Lightsail

Interview Automation - HackNYU   **February 2022**
- Wrote Next.js React pages for creating questions and admins and applicants info pages, assisting with interviewing candidates for NYU VIP Teams by providing scheduling, quizzing and management services
- Handled authentication via Auth0 configuration of NYU SSO logon

EXTRA-CURRICULAR ACTIVITIES

- Rock Climbing Team - done multiple climbs and participated within the Student organization

- Poly Programming Team - participated in programming challenges and competitions