

SAIPRANAV VENKATAKRISHNAN

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EDUCATION

University of Illinois at Urbana Champaign
B.E. in Computer Engineering

May 2025 (Expected)
GPA: 3.93

SKILLS

- **Programming Languages:** C, C++, Python, JavaScript, Java, HTML/CSS, BigQuery SQL, Verilog
- **Technologies:** Unity, Roblox Studio, Android Studios, GitHub, Arduino, Mavean, Google Cloud, MediaPipe, Git Implementation, CLI Experience, Dockers/Kubernetes, TensorFlow/Keras
- **Functional:** Experienced Leader, Critical and Abstract Thinking, Time Management

WORK EXPERIENCE

Quantitative Engineering Intern | Chicago Mercantile Exchange (CME) Group – Urbana-Champaign, IL **Mar 2023 – Aug 2023**

- Spearheaded the conception of three machine learning models, using Google Cloud's BigQuery, to handle 10,000+ of data entries and to predict bonds prices to help CME Clientele with business decisions.
- Configured a remote development environment with a docker container to save over 10 hours during project deployment and remove 15% of the instructions.
- Researched the Factory Design Pattern as a solution to refactor 3000+ lines of CME's codebase.
- Contributed to the development of an internal CME webpage to streamline onboarding processes for future interns.

Coding Instructor | Code Ninjas – Arlington Heights, IL

Sept 2021 – Aug 2022

- Designed curriculum to teach Javascript, Lua, C, Block Coding, and Python to 15+ students.
- Provided 100+ students with exposure to common development environments such as Unity, Roblox, and MCreator.
- Trained 20+ students about GitHub to facilitate cross-developer activities.

INDEPENDENT PROJECTS

Arduino Car

Mar 2022 – Aug 2022

- Designed an RC Car that utilized the Arduino Microcontroller framework for its logic.
- Integrated a wireless Radio Frequency Sensor to communicate and control the car wirelessly.
- 3D modelled and printed the frame of the car, which consisted of five different parts.
- Extended the functionality with an autopilot mode to move around a space and turn when obstructions are near.

Machine Learning Ventures

Aug 2022 – Aug 2023

- Developed a voice assistant on a Flask-based webpage by utilizing the OpenAI GPT-engine API.
- Utilized Google's MediaPipe API to create a sign language interpreter and a model to create a face-mesh of an image.
- Used TensorFlow and Keras to create a Technical Analysis model for predicting the future price of Apple Stocks.

EXTRACURRICULARS

Social Chair of the Association for Computing Machinery

Aug 2022 – Present

- Served as Social Committee co-chair in charge of planning five large scale events for the organization.
- Collaborated with other social committee members to execute 10+ events throughout the school year.
- Communicated with 15+ other committees and clubs to plan joint activities.

SIGArch

Aug 2022 – Present

- Attended weekly seminars about the latest in computer architecture research and design.
- Learned about topics such as FPGA design, CUDA and GPU architecture, Assembly, and Hardware Exploitations.
- Consistently talk about the forefront of research papers with peers to further my understanding.

Boy Scout of America

Sep 2015 – Present

- Achieved the rank of Eagle Scout with a total of 70 merit badges earned.
- Awarded the now-retired William T. Hornaday Conservation Award for my work in the field of conservation.
- Voted into the Order of the Arrow (OA)-the Boy Scouts National Honor Society.

Order of the Arrow

Aug 2019 – Present

- Served as Chapter Chief for my local chapter a year, where I planned monthly meetings and service projects.
- Appointed to be the Website Chairman for the Chicagoland Lodge, where I maintain and update their website.
- Streamlined the process of navigating pages and consistently updated pages for all the chapters and the lodge.