Kartikeya Goel

Richmond Metropolitan Area | kg070225@gmail.com | (804) 414-5262 | linkedin.com/in/kartikeyagoel

Education

Stanford University Expected Graduation: 2029

B.S. Computer Science; Minor in Statistics

- Concentration: AI (planned)
- Relevant Coursework: Programming Methodology, Data Structures & Algorithms, Multivariable Calculus

Experience

MARi Jun 2025 – Aug 2025

Agentic Workflow Engineering Intern

- Designed and deployed a scalable, distributed agentic workflow using Google ADK on Google Cloud Platform (GCP), containerized with Docker.
- Reduced review time by ∼40% and cut redundant edits by 30% by implementing hierarchical sub-agent quality control.
- Enabled revival of a previously abandoned blog pipeline by automating NLP, SEO, and AI image integration, increasing content throughput by 60%.

IQ Spectra Inc. Mar 2023 – Apr 2025

Software Engineering Intern

- Developed C++ and Google Apps Script automation updates, reducing manual task load by ∼35%.
- Collaborated with RPA engineers to design UiPath workflows, macros, and unit tests.
- Automated reporting and business processes, saving 4 staff hours weekly and improving data accuracy.
- Documented release processes and supported deployments via GitHub and UiPath Orchestrator.

Jefferson Lab Jun 2023 – Jul 2023

Research Intern

- Produced 30+ technical documents and 5 tutorials that accelerated onboarding for researchers across 2+ detector labs.
- Improved adoption of a Python-based AI imaging framework, enabling faster project integration into scientific workflows.
- Collaborated with senior researchers to refine data pipelines and provide onboarding support.

Projects

Test Score Predictor Jan 2024 – May 2024

Tools: Python, JavaScript, NumPy, Pandas, Scikit-learn ***GitHub Repo***

- Built a machine learning model with 7 predictors over 20k rows from 2,000+ public schools, achieving 92% accuracy.
- Developed a JavaScript frontend connected to a Python backend for data exploration and visualization.
- Identified key demographic factors influencing standardized test scores; presented results to 100+ attendees.
- Predicted that district-wide adoption could raise test scores by up to 40%, providing schools with targeted improvement strategies.
- Advanced to the National TSA Conference in the Software Development Challenge.

First Robotics Competition Code Base Jan 2024 – Dec 2024

Tools: C++, OpenCV, WPILib, CAN, GitHub Actions ***GitHub Repo***

- Implemented data structures and algorithms (Kalman filters, sensor fusion) in C++ for accurate robot pose estimation.
- Integrated YOLO-based computer vision in OpenCV for autonomous object detection and retrieval.
- Designed autonomous trajectory generation with Bézier curves and dynamic splines.
- Deployed 3D simulation software enabling remote testing, reducing software validation time by 70% for a 30+ member robotics team.
- Built CI/CD pipelines with GitHub Actions to streamline development and testing in a 30+ member robotics team.

Skills

Languages	Python, Java, C++, JavaScript, SQL, Google Apps Script, HTML, React
Libraries / ML	NumPy, Pandas, Scikit-learn, TensorFlow, OpenCV
Systems / Tools	Google ADK, Vertex AI, Google Cloud Platform (GCP), Docker, Git, GitHub Actions (CI/CD), REST APIs, UiPath, PostgreSQL, LabVIEW, CAN Protocol