Kartikeya Goel

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Education

Stanford University 2025 – 2029
B.S. Computer Science (Coterminal)
- Concentration: Systems & AI (planned)

Skills

Frameworks & Libraries	Google ADK, Google AgentEngine, Google Cloud Console, Google AgentSpace, Google Colab, UiPath, numpy, pandas, scikit-learn, OpenCV, WPILib
Tools	GitHub, VS Code, PostgreSQL, LabVIEW, Vertex AI, Google Conversational Agents, Controller Area Network Protocol (CAN)
Languages	Python, Java, JavaScript, C++, Google Apps Script, reST, React, HTML

Experience

MARi Jun 2025 – Present
Agentic Workflow Engineering Intern
- Designed and deployed a multistage agentic system to automate blog post generation using Google ADK and Vertex AI.
- Developed conditionally looping subagent hierarchies to provide targeted feedback throughout the content pipeline (outline, draft, refine, publish).
- Integrated tools such as AI Image Generation, SEO optimization, and Current Events searching to enhance blog posts.

IQ Spectra Inc. Mar 2023 – Apr 2025
Software Engineering Intern
- Delivered weekly software updates including Google Apps Scripts, spec docs, and automation scripts.
- Designed unit tests and macros to support business process automation; trained in UiPath platform.
- Studying and shadowing the RPA (Robotics Process Automation) release process (using github and UiPath Orchestrator).

Jefferson Lab Jun 2023 – Jul 2023
Research Intern
- Reverse-engineered backend logic of a Python-based AI framework for scientific imaging.
- Authored 30+ technical documents and 5 tutorials for internal and public use.
- Collaborated with senior researchers to optimize model training and data pipelines.

Projects

Test Score Predictor Jan 2024 – May 2024
Tools: numpy, pandas, scikit-learn ***GitHub Repo***
- Co-developed a predictive AI model using scikit-learn to forecast standardized test scores for public schools in Virginia.
- Utilized a comprehensive database containing school demographic data, teacher information, graduation rates, absenteeism, and other student statistics.
- The model helped schools identify factors influencing test scores, enabling schools to make targeted improvements.
- Competed at National TSA Conference in the Software Development Challenge.

First Robotics Competition Code Base Jan 2024 – Dec 2024
Tools: OpenCV, WPILib, CAN ***GitHub Repo***
- Created Kalman filters and sensor fusion algorithms for accurate robot pose estimation.
- Integrated YOLO models to identify and autonomously retrieve game pieces.
- Designed autonomous trajectory generation with Bézier curves and dynamic splines.
- Built simulation tools with GitHub workflows for faster development and testing.

Awards & Distinctions

National Merit Finalist
2025

AP Scholar with Distinction
2024

Topsoe STEM Scholarship Program
2025