Parth Parikh

parthparikh04@gmail.com | +1 (814) 616-2586 | linkedin.com/in/parthparikh04 | parthparikh04.github.io | github.com/parthparikh04

Education

Georgia Institute of Technology Expected Graduation: Dec 2027

Bachelor of Science in Computer Science (Intelligence & Theory Threads) GPA: 4.0/4.0

Relevant Coursework: Machine Learning, Intro to Artificial Intelligence, Intro to Perception & Robotics, Data Structures & Algorithms, Design & Analysis of Algorithms, Computer Organization & Programming, Linear Algebra, Object-Oriented Programming

Professional Experience

Undergraduate Researcher, STAR Lab – Atlanta, GA Aug 2025 – Present

- Streamlined end-to-end setup and debugging of TurtleBot4 hardware platforms, developing a ROS 2 control framework to publish commands and interface with onboard sensors for live multi-robot experiments
- Developing reinforcement learning strategies for heterogeneous multi-robot teams that bridge the sim2real gap, focusing on multi-agent coordination, task allocation, and control policies to collaboratively push a box across obstacles to a target location

Discrete Math Head Teaching Assistant, Georgia Tech – Atlanta, GA Jan 2025 – Present

- Led 30 TAs to support 400+ students on topics including logic, proof writing, complexity analysis, and encryption
- Authored exams and homeworks, graded submissions, and provided detailed feedback on proof construction and reasoning
- Led a proof-writing workshop series for 370+ students, modernizing curriculum and establishing lasting resources for future cohorts

Research Mentor & Teaching Assistant, Carnegie Mellon University – Pittsburgh, PA Jun 2025 – Jul 2025

- Advised a student research team developing a system to isolate individual voices from duet recordings, leveraging a Dual U-Net + BLSTM model and a custom dataset of 5,000+ duet samples, guiding the project from ideation through data collection and analysis
- Mentored 70 high school students in Discrete Mathematics, theoretical CS (state machines, introductory programming), and hands-on lab work with large language models, including dataset cleaning and fine-tuning TinyLlama with Hugging Face & Jupyter

Data Science Intern, Revvo – San Mateo, CA (Remote) May 2025 – Jun 2025

- Drove RAG chatbot development project enabling fleet managers and the customer success team to consume fleet-wide tire health insights through natural language, while maintaining development under Git-based version control
- Developed and validated 4 Java APIs and applied prompt engineering to optimize LLM response accuracy and JSON data formatting, securely linking internal Firebase and SQL tire health data with an external LLM

Software Engineering Intern, Beaumont Technologies – Erie, PA Sep 2022 – Jan 2023

- Implemented interactive graphing enhancements in a polymer flow analysis tool (C#), adding hover-to-bold and point-probing features that improved client presentation clarity and satisfaction by 65%

Projects

See++ Sep 2024 – May 2025

- Developed and deployed a full-stack web application using Python, Flask, and JavaScript, enabling users to issue preset or custom voice queries alongside a live camera feed to interpret their surroundings (see-fxer.onrender.com)
- Integrated the Gemini API to process audio queries and generate responses, creating an accessible tool for vision-impaired users

Sentinel CV | 1st Place, HackGT11 Computer Vision Track (650+ participants) Sep 2024

- Developed an intelligent hospital monitoring system to prevent pressure ulcers, building a full-stack Flask/JS website with Python backend that delivers real-time inactivity alerts to patients and nurses
- Implemented YOLO, OpenCV, and MediaPipe to identify and overlay patient joint positions on live dashboards, enabling accurate movement tracking and winning the HackGT11 Computer Vision track (650+ participants)

Flight Delay Prediction Aug 2024 – May 2025

- Collected and preprocessed over 6 million rows of historical flight data, integrating weather data via OpenMeteo API to improve feature representation, and tracked all preprocessing scripts and datasets using Git for version control
- Trained XGBoost, Random Forest, MLP, and RNN models (67% accuracy) and optimized deployment on Google Cloud Run, cutting model size by 83%, data usage by 90%, and training time by 80% while maintaining accuracy

Leadership

President, Big Data Big Impact Aug 2024 – Present

- Directing 30+ board members and organizing events/workshops for 200+ undergraduate students to boost practical ML knowledge
- Overseeing 10 diverse AI/ML project teams with applications from financial analysis to environmental sustainability, facilitating collaboration between students and industry mentors

Skills

Languages: Python, C, C#, C++, Java, JavaScript, React, HTML/CSS

Libraries/Frameworks: ROS2, PyTorch, TensorFlow, Hugging Face, OpenCV, MediaPipe, YOLO, Flask, Pandas, NumPy, scikit-learn, LangChain, Matplotlib, JUnit, Gymnasium

Tools: Git, SQLite, MySQL, Firebase, Jupyter, Jira, D2 (Diagramming), CI/CD Testing, Cloud Run, GCP, Docker, REST APIs

Other: Agile, Machine Learning, Deep Learning, Computer Vision, Cloud Computing, NLP, Prompt Engineering, GenAI