

Sahaj R Patel

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Education

Georgia Institute of Technology *Atlanta, Georgia*

08/23 – 05/25

M.S. in Robotics (AI, Perception, and Human-Robot Interaction Focus Areas)

GPA: 3.85/4.00

University of Florida *Gainesville, Florida*

08/20 – 05/23

B.S. in Computer Science

GPA: 3.76/4.00

Research Experience

Graduate Researcher – Georgia Institute of Technology CORELab – *Atlanta, Georgia*

01/24 – 06/25

- Leveraging Vision-Language Models to enable more robust computation vision capabilities on edge-compute hardware
- Developing vision-based real-time control logic for our autonomous lighter-than-air UAV platform

Undergraduate Researcher – University of Florida EcoDynLab – *Gainesville, Florida*

09/21 – 05/23

- Facilitated data collection and data processing of RGB, LiDAR, Thermal, and Multispectral data for UAV remote sensing

Work Experience

Software Engineer II (2) – Dell Technologies – *Round Rock, Texas*

07/25 - Present

- Developed agentic AI workflow for automated creation of software tool training videos and documentation
- Deployed local-weight frontier AI models at scale for internal development and use with agentic workflows
- Developed an AI-powered digital twin for prototype system performance and power draw prediction
- Created AI skills and automations for cluster-scale GPU server validation for enterprise AI workloads

Graduate Teaching Assistant – Georgia Institute of Technology – *Atlanta, GA*

08/24 – 06/25

- Worked as a grader and instructor for *Intro to Robotics Research* (course covering ROS2, SLAM, navigation, and vision | class size: 80+)
- Developed automated grading tools and reworked existing curriculum to improve the projects for the student learning experience

Graduate Data Engineering Intern – Dell Technologies – *Round Rock, Texas*

05/24 – 08/24

- Developed proof-of-concept telemetry data ETL pipeline to handle time-series telemetry data for next-gen hardware
- Configured TimescaleDB and Grafana to persist and visualize telemetry of cloud compute hardware use for analysis
- Implemented a GenAI (VLM/LLM) data analysis suite to automatically get insights from performance benchmark results
- Leveraged Kafka Schema Registry and AVRO to develop a template for modularizing current internal data processes

Data Science and MLOps Intern – Dell Technologies – *Round Rock, Texas*

05/23 – 08/23

- Implemented latest machine learning-based time-series forecasting models to generate 3 month forecast predictions
- Discovered insights that would lead to 56% savings in hardware configuration costs for upcoming enterprise appliances

Junior Software Development Engineer – Corvid Technologies – *Huntsville, Alabama*

5/22 – 08/24

- Developed customer-facing MATLAB and Python interfaces to run models at 98% of the speed of the C++ source code
- Architected and implemented a logging micro-service with gRPC, Kubernetes, and Docker to improve product usability

Leadership Experience

Co-Founder and Project Manager – UF UAV Club – *Gainesville, Florida*

07/21 – 05/23

- Managed a NASA-funded project for purpose-built VTOL drones under a \$1200 per unit budget
- Led a team of 12 members in developing low-cost multi-rotor UAVs at 50% of the purchase price 2x the flight time

Projects

- FastTrak: Social Robot Companion for Indoor Navigation 4/24
- Digital Twin for Vision-based Fault Detection for FDM Additive Manufacturing using Computer Vision 4/24
- Stinger: Automated Monocular Depth Estimation-based Golf ball Putting Robot 12/23
- Object Detection-based Navigation Algorithm for Maze Solving Robot 12/23
- Real-Time Illegal Ghanaian Charcoal Mine Detection Pipeline 05/23
- Low-Cost Hyperspectral Data Analysis Pipeline for Controlled Environment and Space Agriculture 03/23

Honors and Awards

- **Dean's List** – University of Florida 08/20 – 05/23
- **Code for Good Hackathon Winner** – JPMorgan Chase 11/22

Certificates

- Google Data Analytics 03/23
- University of Washington Machine Learning Specialization 03/23

Publications

- Low-cost real-time aerial object detection and GPS location tracking pipeline (ISPRS) 06/24