GALAV SHARMA

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To contribute to the simplification and betterment of humankind using technology.

EDUCATION

North Carolina State University, Raleigh, NC

Master's of Computer Science   **August 2025 - May 2026**

Bachelor's of Computer Science, Artificial Intelligence Concentration   **August 2021 - May 2025**

- Graduated *Summa Cum Laude* with name on Dean's List every semester.   **GPA: 3.98**

EXPERIENCE

Software Engineering Intern - *KPIT Technologies Inc (Novi, MI)*   **June 2025 - August 2025**

- Developed a scalable, flexible validation pipeline supporting diverse end-to-end autonomous driving stacks and datasets, enabling consistent, efficient, and automated large-scale testing.
- Automated evaluation at both end-to-end and component levels using KPI-driven metrics, visual outputs, and RMSE-based pass/fail metrics.
- Delivered a production-ready system that reduced manual effort, enhanced reliability and provided actionable insights for data-driven debugging

Software Engineering Intern - *KPIT Technologies Inc (Novi, MI)*   **June 2024 - August 2024**

- Reverse engineered AD stack's LiDAR detection code to develop a 3D object detection model, enhancing accuracy with point cloud data.
- Optimized object detection model to substantially improve accuracy and efficiency through extensive testing and performance evaluation.
- Integrated object detection model with Carla Simulator, implementing 2D and 3D bound box visualization, creating an advanced simulation environment with integrated object detection capabilities

Software Intern - *Peppermint Robotics (Tampa, FL)*   **July 2023 - October 2023**

- Designed and developed a mobile application for the Peppermint Services platform, using Flutter with Tele-Operational functionality to enable remote control of a robot over Wi-Fi.
- Developed a user-friendly Dart-based frontend and implemented WebSockets for real-time communication between the app and the robot.
- Utilized ROS2 Rosbridge to facilitate secure transmission of control commands and sensor data between the app and the robot.

PROJECTS

Proxy Variable Exploration Tool - *NCSU & SAS*   **07/2024**

- Developed a web application to allow data scientists to upload CSV dataset and identify potential proxy variables for sensitive variables, utilizing three advanced algorithms for proxy variable analysis
- Implemented a ReactJS frontend and a Python backend, with Flask framework to ensure seamless communication

Agricultural Analysis and Prediction Using Crop Yield Data   **01/2024**

- Analyzed crop yield data to identify key agronomic factors affecting agricultural productivity and implemented predictive models (Linear Regression, Random Forest, Support Vector Regression) achieving over 95% accuracy.
- Utilized data visualization and feature selection to explore relationships between total crop yield and agronomic factors such as crop type, climate conditions, and location, contributing valuable insights for optimizing crop yield and agricultural productivity.

SKILLS

Programming: Java, Python, C, C++, JavaScript, ReactJS, AngularJS, Flutter, Dart, Arduino
Tools and Technologies: Git, Docker, SQL, REST APIs, ROS2 RosBridge, Automated Testing & Validation, Carla Simulator, Websockets
Specialized Expertise: Artificial Intelligence, Machine Learning, Robotics, AD/ADAS Systems, Simulation integration and visualization
Certifications: IBM AI Developer Professional Certificate (ongoing), Google IT Automation with Python Professional Certificate (05/25), IBM Introduction to AI (08/24); Python Programming Certificate (07/22); AI, Machine Learning and Programming (12/20)