

# Simant Singh

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## Education

Bachelor's in Science, Computer Science with Minor in Mathematics  
University of New Orleans (UNO)

GPA: 4.0/4.0  
Aug 2022 – May 2026

- Vice Lead of Google Developers Student Club
- **Coursework:** Data Structures and Algorithms, Object Oriented Principles, Computer Networks, Cloud Computing, Computer Design and Organization, Data Models and Database Systems
- **Publication:** Raxit, S., **Singh, S. B.**, Redwan Newaz, A. A., (2024) "YoloTag: Vision-Based Robust UAV Navigation with Fiducial Markers." *IEEE International Conference on Robot and Human Interactive Communication (RO-MAN)*, arxiv.org/abs/2409.02334v1

## Experience

### Bentley Systems

Software Engineer Intern

May 2024 – Aug 2024  
Covington, LA (Remote)

- Collaborated with a cross-functional team throughout the Product LifeCycle to design the AssetWise Inspections mobile app, facilitating efficient data capture, analysis, and management of assets for over 5000 users.
- Designed custom mobile components that improved UI consistency and reduced development time by 27% across Android and iOS projects.
- Developed backend API endpoints for frontend data fetching using agile methodologies to ensure efficient delivery.
- Tools: TypeScript, React-Native, C#, ASP.NET, Microsoft SQL Server, Realm Database, Swagger

### Autonomous Intelligent Robotics Lab, UNO

Research Assistant

Jan 2023 – May 2024  
New Orleans, LA

- Engineered a real-time detection algorithm for localizing drones using various Machine Learning models and following the Software Development LifeCycle (SDLC) to surpass traditional techniques in detecting fiducial markers.
- Trained Deep Neural Networks and conducted unit-testing for improving the Roomba robot's precision in Computer Vision techniques for obstacle avoidance by 32%.
- Created a researcher dashboard website to streamline task tracking and organize deadlines and documents for conferences and research papers, improving workflow efficiency by 43%.
- Crafted a GUI for automating the initialization process of all robot components, reducing the set-up time by 21%.
- Tools: C++, Python, JavaScript, React, Flask, MySQL, PyTorch, Keras, Qt, QML, ROS

## Projects

**RESPER:** Full-stack restaurant management web app with admin, employee, and customer portals along with automated GitHub CI/CD Pipeline and Cloud deployment. **Tools:** Vue, Node.js, Express, MongoDB, AWS, Terraform

**Music Playlist & Recommender Bot:** Discord music bot that allows users to manage and synchronize custom playlists by improving caching mechanisms that reduces song recommendation retrieval times by 17%. **Tools:** Python, MongoDB, Docker

**Car Dealership:** Car dealing system with a chat application for buying and selling vehicles through agents. **Tools:** Java, JUnit, TCP Socket, Object Oriented Programming (OOP), Network Programming

**FoodScan+:** Comprehensive mobile application that provide users with detailed information about over 1 million food products by simply scanning their barcodes. **Tools:** Flutter, Firebase

**TextUtils:** An intuitive web application designated to streamline text manipulation tasks to over 50 formats. **Tools:** Angular, CSS, Webpack

## Skills

**Languages/Database:** Python, Java, C/C#/C++, .NET, Visual Basic, JavaScript, TypeScript, HTML/CSS, SQL, MongoDB

**Libraries/Frameworks:** React, React Native, Vue.js, Angular.js, Node, Android SDK, Xcode, OpenCV, Pandas, ROS

**Operating Systems & Tools:** AWS, Terraform, GitHub CI/CD, Bash, Git, REST APIs, Windows, Unix/Linux, Docker