John Doe

1-555-000-0000 • john@example.com • www.example.com

Education

Master of Science, Robotics Aug 2024 - May 2026
Carnegie Mellon University, School of Computer Science

Bachelor of Science, Mechanical Engineering Aug 2020 - May 2024
Georgia Institute of Technology, College of Engineering

Experience

Robotics Software Engineer Intern • Boston Dynamics • Waltham, MA May 2025 - Aug 2025

- Implemented real-time obstacle avoidance algorithms for quadruped locomotion across uneven terrain, reducing collision events by 34% during field trials in warehouse environments.
- Designed a ROS2-based sensor fusion pipeline integrating LiDAR, stereo vision, and IMU data to improve localization accuracy from 15cm to under 3cm drift per kilometer.

Undergraduate Research Assistant • Georgia Tech LIDAR Lab • Atlanta, GA Jan 2023 - May 2024

- Built a custom dataset of 12,000 annotated point clouds for outdoor scene segmentation, establishing a benchmark adopted by three partnering institutions.
- Trained transformer-based 3D object detection models on multi-GPU clusters, achieving a 7% improvement in mean average precision over baseline architectures.

Autonomous Systems Intern • Waymo • Mountain View, CA May 2021 - Aug 2021

- Prototyped a lane-change prediction model using LSTM networks trained on 500 hours of highway driving data, improving prediction horizon accuracy by 18% over the existing baseline.
- Automated nightly regression testing for the perception pipeline using Python and Bazel, cutting manual QA time by 3 hours per day across the team.

Projects

Atlas • Autonomous drone navigation system with visual SLAM. *C++, Python*

- Engineered a monocular visual SLAM pipeline capable of mapping indoor environments at 30fps on embedded NVIDIA Jetson hardware with sub-5cm positional error.
- Integrated a lightweight path planner that dynamically reroutes around newly detected obstacles within 200ms, tested across 50 unique indoor floorplans.

Forge • Custom 3D printing slicer optimized for multi-material extrusion. *Rust*

- Developed a parallel slicing engine that processes complex multi-body STL files 3x faster than conventional open-source alternatives while maintaining sub-layer accuracy.
- Implemented automatic support structure generation using voxel-based overhang detection, reducing failed prints by 22% across a test suite of 200 models.

Skills

Languages: Python, C++, Rust, Go, TypeScript, MATLAB, SQL, Bash, LaTeX
Frameworks: ROS2, PyTorch, TensorFlow, OpenCV, React, Docker, Kubernetes
Hardware: NVIDIA Jetson, Raspberry Pi, Arduino, STM32, ZED Stereo Camera, Velodyne LiDAR