KARTHIK KALIDAS

Fort Worth, TX ◇ 614-815-7623 ◇ karthik.kalidas@gmail.com ◇ Website ◇ LinkedIn

PROFESSIONAL SUMMARY

Technical leader with 6 years of experience delivering autonomous vehicle platforms from concept to deployment. Expert in HIL infrastructure, sensor integration, and large-scale test automation. Proven ability to execute and scale solutions, solve complex problems, and drive cross-functional team success.

WORK EXPERIENCE

Senior Systems Engineer, Test Automation Jan 2025 – Present
Torc Robotics, Dallas–Fort Worth, TX

- Spearheading HIL validation roadmap across 5 autonomy teams, boosting system test coverage by 70%
- Leading team of 7 engineers, delivering 15+ features per release through efficient sprints and reviews
- Deployed fully automated robotic HIL test via CI/CD using temporal workflows, achieving zero-touch software flashing, mission validation, and mode engagement in under 20 mins
- Boosted HIL stability and uptime from 30% to 99% through proactive monitoring and redundancy solutions

System Integration Engineer, Autonomous Driving Kit Nov 2021 – Jan 2025
Torc Robotics, Albuquerque, NM

- Led rapid integration and deployment of autonomy platform in collaboration with Daimler Truck for mass production
- Developed patented sensor setup station for full sensor set configuration in under 12 mins with remote diagnostics
- Commissioned 4 vehicle generations with self developed tooling, optimized workflows, and thorough documentation
- Gained expertise in system issue troubleshooting, root cause analysis, resolving 100+ critical system issues

Test Engineer, On-Road Testing Jan 2021 – Nov 2021
Torc Robotics, Albuquerque, NM

- Designed extrinsic calibration procedure for lidars, radars, and cameras using internal tooling
- Tuned and optimized longitudinal and lateral controllers, reducing autonomous disengagements by 30%
- Led establishment of Torc's first semi-truck test operations facility, building and training the test engineering team

PUBLICATIONS

2025 - Systems And Methods For Automatic Sensor Configuration, 139906-05801
2025 - A Cloud-Based Platform For Automatic Sensor Configuration, 139906-08501
2021 - Simulation Framework for Testing Autonomous Vehicles, SAE Technical Paper 2021-01-0118

SKILLS

Languages	C/C++17, Python, Go, Bash, JavaScript
Tools/Framework	ROS1/2, TensorFlow, OpenCV, Vue.js, Bazel, MATLAB, CANape, SolidWorks
DevOps	Linux, GitHub Actions, Jenkins, Terraform, Docker, AWS, Datadog

AWARDS

2024 – Employee of the Quarter Q2, Torc Robotics
2021 – Employee of the Quarter Q1, Torc Robotics
2019 – Formula Student Award, IIT Bombay Racing
2018 – Institute Technical Citation, IIT Bombay
2015 - All India Rank 606, JEE Advanced

EDUCATION

The Ohio State University, Columbus, OH Dec 2020
Master of Science, Mechanical Engineering GPA: 4.0/4.0

Indian Institute of Technology (IIT) Bombay, India Aug 2019
Bachelor of Technology, Mechanical Engineering CPI: 8.4/10.0