

KARTHIK KALIDAS

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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 <12 mins, utilized on over 25 trucks
- 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, Vue.js

Tools/Framework

ROS1/2, Bazel, MATLAB, CANape, SolidWorks, Jama, Cameo

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