Karthik Kalidas

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EDUCATION

THE OHIO STATE UNIVERSITY
M.S. Mechanical Engineering
Graduated Dec 2020 | GPA: 4.0/4.0
Columbus, OH

IIT BOMBAY
BTech. Mechanical Engineering
Graduated Aug 2019 | CPI: 8.4/10.0
Mumbai, India

UDACITY
Self-Driving Car Nanodegree
October 2021 - March 2022

TECHNICAL SKILLS

PROGRAMMING LANGUAGES
Comfortable:
• C++ • Python • Go Familiar:
• Java • JavaScript • Vue

SOFTWARE/ TOOLS
• ROS • Docker • Git
• TensorFlow • OpenCV
• MATLAB/Simulink • CANape • CANalyzer
• SolidWorks • Onshape • ANSYS

RESPONSIBILITIES

Graduate Teaching Associate
Multidisciplinary ME Lab, OSU, 2020

Department Academic Mentor
ME Department, IITB, 2017

KEY COURSEWORK

• Digital Control
• Linear Systems Theory
• Design & Control of Mechatronic Systems
• Simulation Techniques for Dynamic Systems

AWARDS

2018 Institute Technical Citation
2018 Institute Technical Color
2015 All India Rank 606 in JEE Advanced
2015 KVPY Scholarship Recipient

HOBBIES

Jiu-Jitsu • Mindfulness • Tennis • Tinkering

WORK EXPERIENCE

TORC ROBOTICS
System Integration Engineer | Autonomous Driving Kit
Nov. 2021 – Present | Albuquerque, NM

- Evaluating full system performance, understanding the contributions of relevant sub-systems, and providing feedback to development teams
- Supporting rapid integration and deployment for next generation autonomy stack with consistent releases based on system requirements
- Actively working towards improvements in system reliability, issue tracking and resolution

Test Engineer | On-Road Testing
Jan. 2021 – Nov. 2021 | Albuquerque, NM

- Responsible for executing test plans to uncover the limitations of our systems, collecting relevant data to drive improvements
- Supported deployment of supplementary instrumentation and infrastructure required to capture data defined by test plans
- Worked closely with software component teams to generate quantifiable performance metrics

KPIT TECHNOLOGIES
Engineering Intern | ADAS Group
May 2018 – Jul. 2018 | Pune, India

- Responsible for designing and testing rapidly deployable hardware to enable Automatic Emergency Braking in passenger vehicles
- Modeled AEB on Simulink to extract design requirements for actuators and linkages, and simulate vehicle behavior
- Received Pre-Placement Offer to join full-time based on internship progress and performance

KEY PROJECTS

PEDESTRIAN COLLISION AVOIDANCE FOR AUTONOMY
M.S. Thesis | Advisor: Prof. Aksun Guvenc, OSU
Aug 2019 – Dec. 2020 | Columbus, OH

- Worked towards developing autonomous shuttles to operate at the Ohio State School of Blind
- Developed and pedestrian motion models and tracking algorithm using Interacting Multiple Model filter
- Conference paper[1] published and presented at SAE WCX 2021

FORMULA STUDENT
IIT Bombay Racing | Chief Mechanical Officer
Sep 2016 – Aug. 2019 | Mumbai, India

- Led the overall mechanical system design, manufacturing and performance testing of electric racecar with focus on electromechanical powertrain, high-voltage battery, cooling system and system integration
- Achieved over 100Kms of track testing both nationally and internationally for boosting reliability and performance
- Presented at the prestigious Design Event and Cost Event to leading motorsport professionals at FSUK ‘19