

# Jithin Vadakel

JithinVadakel@gmail.com | 734.773.6125 | Boston, MA | [linkedin.com/in/jithinvadakel](https://www.linkedin.com/in/jithinvadakel)

## Summary

Mechanical Engineering graduate with demonstrated proficiency and knowledge for lean manufacturing processes and efficient product design dictated by a focus on materials science and electrical systems applications.

## Education

Masters of Science in Mechanical Engineering

**OAKLAND UNIVERSITY / ROCHESTER HILLS, MICHIGAN**

**AUGUST 2022**

Bachelors of Science in Mechanical Engineering

**UNIVERSITY OF COLORADO DENVER / DENVER, COLORADO**

**DECEMBER 2016**

## Technical Experience

- Computer Aided Design & Manufacturing (CAD/CAM): Solidworks, AutoCAD, Revit, Pro/ENGINEER
- Fabrication: utilizing machining, welding, and 3D printing for multi-axis test fixture fabrication
- Fabrication: Carbon fiber composite via vacuum infusion, wet-layup, autoclave cured pre-pregs
- Electrical wiring manufacturing and repairs: production crimping, soldering, welding, and stamping
- Vehicle Testing Methodology and Race Telemetry / DAQ: MoTeC C125 & TunerStudio
- TIG/MIG Welding, Machining, G-Code for CNC: Edgecam & Mastercam
- Computational Fluid Dynamics (CFD): ANSYS Fluent & Star CCM+
- Finite Element Analysis (FEA): LS Dyna & Abaqus
- Programming: C++, MATLAB, MathCAD, NI LabVIEW
- Expert OS Proficiency: GNU/Linux, Ubuntu, and Debian

## Work Experience

**E-SYSTEMS DESIGN VALIDATION ENGINEER: LEAR CORPORATION / SOUTHFIELD, MICHIGAN**

**JULY 2017 - PRESENT**

- OEM-supplier-manufacturing liaison; create timing plans & execute tests on schedule
  - Design/Product validation responsibility to satisfy all customer requirements
  - Global collaboration to create & follow DVP&R for Ford projects
  - System architecture test and report for China and Europe
  - Specifications: USCAR, SAE, ASME, Ford, GM, Stellantis
- FEA on wire harness cycling, routing prediction, component durability, and test automation
- Rapid prototyping components using Carbon3D CLIP, Raise FDM, and Formlabs SLA
- On-site -troubleshooting, warranty analysis, electrical and mechanical design validation tests

**MECHANICAL ENGINEER: DCS CORPORATION / WARREN, MICHIGAN**

**JUNE 2017**

- MIL Spec prototype design on U.S. Military vehicles: Cockpit interface features for Stryker & Humvee
  - Received government security clearance level: 1 Secret

**ELECTRICAL TECHNICIAN: OEM SERVICES / DEARBORN, MICHIGAN**

**JANUARY 2017 - MAY 2017**

- Troubleshoot, test, update electrical distribution systems, test equipment calibration
  - Ford Escape / Lincoln MKC vehicles built for China, Europe, North & South America

## Memberships & Projects

**SOCIETY OF AUTOMOTIVE ENGINEERS (SAE)**

**JUNE 2013 - PRESENT**

- 2015-16 Formula SAE Team: Aerodynamics Lead / Business Manager
- 2016 Formula SAE Competition: Car #40
  - 1 out of 21 cars to complete the endurance event out of 70 vehicles that started
- CFD performed on side-pods, nose-cone, and undertray for 3 design iterations
- Component failure analysis, system/subsystem integration, quality assurance, process design and management
- Fabrication of aero-package: Carbon-fiber reinforced thermoplastic (CRFTP) composites

**SOCIETY OF MANUFACTURING ENGINEERS (SME)**

**AUGUST 2013 - PRESENT**

- CU Denver student chapter S324 – Chair