**Professional Summary**

Mechanical Engineer with 25+ years of diverse experience across automotive and aviation industries, specializing in ICE, EV, and propulsion systems. Proficient in developing, testing, and validating complex systems with a deep understanding of engineering principles. Adept at managing cross-functional teams, mentoring engineers, and driving innovative solutions. Strong analytical skills with expertise in diagnostics, root-cause analysis, and data-driven decision-making.

**Core Competencies**

* Test Engineering & Validation
  + Dynamometers, Data Acquisition, Instrumentation, V&V Processes
* System Development
  + Propulsion Systems, Powertrain, EV/ICE Technologies, Hybrid Systems
* Data Analysis & Diagnostics
  + NVH, Performance Mapping, Root-Cause Analysis, LabVIEW
* Project Leadership
  + Cross-Functional Team Collaboration, Mentorship, Process Optimization

**Professional Experience**

**Wisk Aero – Mountain View, CA**

Staff Systems Test Engineer – Propulsion (Jan 2024 – Nov 2024)

* Designed, assembled, and commissioned test assets for Wisk Generation 6 Aircraft Systems Verification & Validation (V&V)
* Led cross-functional teams in developing test requirements and troubleshooting
* Mentored new engineers in propulsion testing and certification processes

Lead Systems Test Engineer – Propulsion (May 2023 – Dec 2023)

* Directed system and subsystem verification for hybrid aircraft powertrain systems, including Iron Bird and thrust stand setups
* Developed and operated National Instruments hardware and software (LabVIEW, VeriStand)
* Established powertrain testing labs, achieving full operational capacity from ground zero

**Archer Aviation – San Jose, CA**

Motor Build & Powertrain Testing Labs Leader (Feb 2022 – Apr 2023)

* Designed and commissioned motor build and powertrain testing labs, including AC and water brake dynamometers
* Led test planning for performance, mechanical/electrical validation, and HALT testing
* Conducted detailed data analysis for performance, NVH, and durability assessments

**Lucid Motors – Newark, CA**

Drive Units Test & Validation Technical Specialist (Aug 2021 – Jan 2022)

* Led HALT and environmental testing for EV drive units
* Developed test consoles using LabVIEW and VeriStand for powertrain setups
* Redesigned test cells and procedures, enhancing test efficiency and accuracy

**UAV Turbines – Miami, FL**

Senior Test Engineer (May 2020 – Oct 2021)

* Enhanced test data recording, processing, and reporting systems
* Led NVH studies, instrumentation, calibration, and post-processing
* Authored and maintained test documentation, improving procedural clarity

**FCA North America (Chrysler Technical Center) – Detroit, MI**

Powertrain Advanced Engine Engineer (Jan 2019 – Aug 2021)

* Designed base engine components and systems for advanced fuel-efficient engines
* Supported dynamometer and bench testing, facilitating project handoff to production

Core Engine Mechanical Development Test Engineer (Aug 2015 – Dec 2018)

* Worked on I4, V6, V8 platforms and PHEV technologies, focusing on DFMEA and DVP&R

Powertrain CAE Engineer (May 2015 – Aug 2015)

* Led virtual analysis for powertrain material model development and validation

Dynamometer Test Management Engineer (Nov 2013 – May 2015)

* Managed engine, transmission, and catalytic converter testing for powertrain systems

**Education**

Ph.D. in Mechanical Engineering (ABD) – Oakland University, Rochester Hills, MI (2016 – 2025)

M.S. in Mechanical Engineering – University of Florida, Gainesville, FL (2005 – 2007)

B.S. in Mechanical Engineering – Florida Atlantic University, Boca Raton, FL (2000 – 2004)

**Technical Skills**

* Software & Tools
  + LabVIEW, VeriStand, ANSYS, SolidWorks, Siemens NX, AutoCAD, MATLAB, Simulink, Catia, Abaqus, DeweSoft, Python, C/C++, C#, HTML, CSS, JavaScript, Linux, Git, GitHub
* Mechanical Systems
  + Dynamometers, NVH Testing, Powertrain Calibration, Fluid Mechanics, Thermodynamics
* Simulation & Analysis
  + GT-Power, CHEMKIN, Converge CFD, AVL Excite, nCode, Fluent, Star-CCM+
* Other
  + MS Office Suite, PLCs, Microcontrollers, Data Acquisition & Analysis, DFSS Black Belt Training, Oscilloscope, Spectrum Analyzer, Communication (CAN, RS-232/485, EtherCAT, Ethernet, Modbus RTU/TCP, High Voltage Systems, others