



PROFESSIONAL SUMMARY

Vision-driven change agent with career-long record of business and project development success for leading organizations

A highly accomplished, customer focused, and results-oriented mechatronics engineer with over 17 years in the automotive industry ranging from major companies to start-ups and consulting work in multiple countries. Born leader highly regarded for managing complex design projects that meet demanding time restraints and exceed all expectations. Out-of-the-box thinker who champions innovative solutions to integrate best practices, drive continuous improvement, and mitigate project risks. Outstanding qualifications include three degrees including an M.B.A. from the University of Illinois Urbana-Champaign. Passionate about translating skills and experience into a new challenging and rewarding leadership role in the technical field.

CORE COMPETENCIES

- Team Leadership
- Entrepreneurship
- Communication
- Project Management
- Process Improvement
- Tools and Technology
- Data Modeling
- Multitasking
- Adaptability

PROFESSIONAL EXPERIENCE

VITESCO TECHNOLOGIES, LOS ANGELES METROPOLITAN AREA, AUGUST 2022 TO PRESENT

TECHNICAL BUSINESS DEVELOPMENT MANAGER

- Oversee Electric Vehicles and Fuel Cells (FC) business development for most known startups in North America.
- Business engagement and pitch of portfolio presentation for (not limited to) electric motors, On Board Chargers (OBC), inverters, and DC/DC converter power electronics products, as well as FC/thermal products including pumps, valves, actuators, and sensors.
- Execute NDAs (Non-Disclosure Agreement), initiate RFI/Q (Request For Information, Request For Quote) process, and maintain key account relationship.
- Host meetings with product line stakeholders to evaluate project feasibility as well as identify and resolve potential roadblocks to completion.
- Achieve consistent completion of business acquisition in start-up domain, demonstrating outstanding organizational and leadership skills by engaging technical stakeholders.

CANOO, TORRANCE, CA, JUNE 2021 TO AUGUST 2022

SENIOR ENGINEERING TEAM LEAD

- Orchestrated strategy development for corporate infotainment, ADAS (Automated Driving Assistance System), OBC, telematics, and V2X (Vehicle to Everything) strategies.
- Resolved issues with functioning of company products by executing systems troubleshooting as needed.
- Authored and reviewed vehicle system level requirement and attributes distilled to cross functional sub-system definition.
- Oversaw four independent consultants from multiple countries to manage service diagnostics and s/w feature implementation.
- Facilitated and apply SAFe (Scaled Agile Framework) for enterprise level software product management.
- Conducted electrical bring-up at the manufacturing green field set up.

FORD MOTOR COMPANY, DEARBORN, MI, NOVEMBER 2015 TO JUNE 2021

RESEARCH ENGINEER

- Enhanced ADAS simulation and software debugging processes by designing low cost drive simulator, mathematical models, and 3d scenes for use in each, as well as formulating visualized training module for new ADAS tool process.
- Created MBD (Model Based Design) workflow and design principle to guide teams to conform to ISO26262 standard.
- Developed Model In the Loop (MIL) software testing frame work engaging vehicle dynamic simulation model/simulator for accommodating desktop testing capability.

CUMMINS, VARIOUS LOCATIONS (US,UK, THE NETHERLANDS), OCTOBER 2007 TO NOVEMBER 2015

TEAM LEAD-DIAGNOSTICS, DATA ANALYSIS

- Constructed On Board Diagnostics (OBD) calibration contents to detect the failure of vehicle emission components, mainly sensors and actuators.

- Employed statistical approach in analysis of large datasets to accurately determine abnormal system behavior before leading to a failure.
- Analyzed failure mode (FMEA) and rigorously conducted failure mode testing (FMET) on various test platforms (desk top simulation (MIL), Hardware in the Loop (HIL)).
- Led HIL testing team to bring up capability from the scratch and established HIL s/w testing as part of s/w release process.
- Developed and facilitated a project to author technical s/w requirements for CAN signal interface.
- Cultivated customer relationships while managing powertrain system project during direct customer facing international assignment.

PREVIOUS EXPERIENCE

RACKHAM GRADUATE SCHOOL, UNIVERSITY OF MICHIGAN, MI, JANUARY 2005 TO OCTOBER 2007 | **GRADUATE RESEARCH ASSISTANT**
OPAL-RT TECHNOLOGIES MICHIGAN, APRIL 2007 TO AUGUST 2007 | **FIELD APPLICATION ENGINEERING INTERNSHIP**
REPUBLIC OF KOREA ARMY, SOUTH KOREA, DECEMBER 1999 TO FEBRUARY 2002 | **SERGEANT—BLACKHAWK HELICOPTER MAINTENANCE MECHANIC AND FLIGHT ATTENDANT**

EDUCATION AND CREDENTIALS

MASTER OF BUSINESS ADMINISTRATION (M.B.A.) IN CORPORATE FINANCE, INVESTMENT, AND BUSINESS ANALYTICS, 2021
University of Illinois, IL; Gies College of Business

MASTER OF SCIENCE (M.SC.) IN MECHANICAL ENGINEERING, 2010
University of Michigan, MI; Rackham Graduate School

BACHELOR OF SCIENCE (B.SC.) IN MECHANICAL ENGINEERING, 2005
Korea Aerospace University, Goyang, South Korea

CERTIFICATIONS

- Google Project Management (credential ID: [QTP2EKL69CVP](#), Google, issued July 2022)
- Certificate of Completion in Financial Management Specialization, Glen College of Business, University of Illinois Urbana-Champaign ([link](#), issued September 2021)
- Certificate of Completion in Business Analytics Specialization, Glen College of Business, University of Illinois Urbana-Champaign ([link](#), issued January 2021)
- Certificate of Self Driving Car, Udacity (credential ID: [5R7RH56H](#), Udacity, issued July 2019)
- Professional Engineer (PE), State of Michigan (Credential ID: [6201066645](#), issued January 2018)

PUBLICATIONS

Shim, Taehyun, Sehyun Chang, and Seok Lee. "Investigation of Sliding Surface Design on the Performance of Sliding Mode Controller in Antilock Braking Systems." *IEEE Transactions on Vehicular Technology*, Vol. 57, No. 2, March 2008.

DOI: [10.1109/TVT.2007.905391](#)

Lee, Seok, Taehyun Shim, and Byung-Kwan Cho. "Development of a Brake System for Lightweight Vehicle." ASME 2006 International Engineering Congress and Exposition. DOI: [10.1115/IMECE2006-15437](#)

Lee, Seok. "Brake design and modeling of Low Mass Vehicle." Technical Project Report, The University of Michigan-Dearborn Institute for Advanced Vehicle Systems. January 2006. [Link](#).

ADDITIONAL INFORMATION

Technical Proficiencies: MATLAB, Simulink, R, Python, Project Management, CarSIM

Interests: Swimming, History, Economics, Corporate Operations, Business Development, Start-ups, disruptive technology, manufacturing, Corporate strategy, Financial analysis, Business analytics