

Career Profile - Simon Kim



REE Automotive, United Kingdom

4 yrs 1 mo

Head of Driveline & Thermal Systems , REE Automotive

Nov 2022 – Present – 2 yrs 7 mos

System Owner of Propulsion (Electric Drive Unit and Driveshaft) and Thermal System (Battery & EDU Cooling and Cabin Comfort) having extensive ownership of Hardware, Software, Network(CAN, Diagnostics and Reprogramming), Calibration and Validation for Driveline and Thermal Systems.

- System Owner of EDU (Motor, Inverter and Gearbox), Driveshaft & Thermal System incl. Strategy/Concept/Supplier Nomination/Design and Validation
- Attribute Owner for Performance, Efficiency, Aero and Thermal ensuring system requirement, implementation and validation
- Technical Leadership of System Delivery & Technical Sign-Off
- Virtual Assessment of Vehicle Performance using AVL VSM
- Manage Vehicle Thermal Simulation - 1D(GT-Suite) & CFD(Start-CCM+)
- Recruiting/Structuring/Managing teams for Driveline and Thermal System
- Managing budget for Contractors, Outsourcing and In-house Validation
- Support Certification Readiness for Homologation (e.g. FMVSS) and Compliance (e.g. ISO 26262 Functional Safety and ISO 21434 Cyber Security)

Principal Engineer – EV Driveline, REE Automotive

May 2021 – Nov 2022 - 1 yr 6 mos

Great journey in contribution to innovative full by-wire commercial electric vehicle in dynamic start-up environment working with the cross-functional teams across Israel, Europe, UK and US.

- Develop bespoke oil-cooled 3-in-1 EDU(Electric Drive Unit) including eMachine, inverter and gearbox
- Develop requirements and attributes for EDU Hardware, Inverter Software, Calibration, Functional Safety and Network (bootloader and cybersecurity) to meet vehicle targets
- Develop component & vehicle validation plan and lead technical sign-off
- Organised and managed a growing Driveline team
- Support Prototype Vehicle Builds and Validation



Jaguar Land Rover, United Kingdom

10 yrs 1 mo

Hardware Lead Engineer, Hybrid Automatic Transmissions, JLR

Apr 2019 – Apr 2021 - 2 yrs

Technical Lead for ZF 8P75PH Automatic Hybrid Transmission hardware & TD1 clutch for Range Rover and Defender PHEVs.

- Lead cross-functional commissioning of engine driven in-house test rig for PHEV and unprecedentedly sign off on time for durability test
- Expedited the long-held deviation for vehicle towing capability capped by 2.5 tons due to overheated hybrid launch clutch and achieved business expectation , 3 tons, deriving supplier warranty by demonstrating the launch clutch temperature during vehicle test.

System Lead Engineer, Hybrid Automatic Transmissions, JLR

Jul, 2018 ~ Mar, 2019 – 9 mos

System lead role delivering next generation of Electrified Automatic Transmissions with integrated Inverter.

- Develop System Requirement Package for Next Generation Transmission encompassing Transmission Hardware, Software, Calibration, eMachine and Inverter.
- Generated Unit Programme plan for Transmission System (independent to Vehicle Programme). Develop system commodity plan & define critical path and prototype build schedule and validation plan.
- Responsible for uPDL (Unit Product Development Letter)
- Owner of Target Brochure for MTC (Modular Transmission Concept)

SME, Automatic Transmissions Concept & Strategy, JLR

Nov, 2017 ~ Jun, 2018 - 8mos

Owner of CSR (Commodity Strategy Review) paper of Future Transmission Strategy for board-level approval. Aligning with cross-functional senior leadership for business case and generating executive summary for market intelligence.

- Developed technical and commercial proposals with various Transmission concepts for future architecture, eg DCT, Electrified (M&PHEV) Automatic Transmission, Hybrid Automatic Transmission & DMF for MSA X162 and suitable for future architecture new Torque Converter for MLA MHEV.

Lead Engineer, Manual Transmissions, Product Development, JLR

Mar, 2011 ~ Nov, 2017 5yrs 9mos

Responsible for design and integration of manual transmissions. Broad experience on design deviations, test failures, vehicle build & launch issues.

- Delivery of various manual transmissions including ZF S6-45 for Jaguar XE & F-type/ GFT M66 Gen2 for Land Rover Evoque and Discovery/ Aisin AW BG6 for Jaguar E-Pace.
- Generate SDS (System Design Specification) and DFMEA.
- Product Engineering for full life cycle from concept design to product launch.
- Coordinated Sign-off for GRADE (JLR Electric Component Approval Process) Review and EMC compliance.



Research Engineer, Mechatronics, Defense R&D Centre, Samsung Techwin - Korea

Sep, 2010 ~ Mar, 2011 - 7mos

A brief career in defense as technical lead for mechatronics design for military applications.

- Lead designer of planetary gearbox and drivetrain components for 6WD In-wheel Autonomous Combat Vehicle and Security Guard Robot
- Streamlined gearbox development process with new software (MASTA) and mentoring.
- Developed design validation plan and establish product Stress-Life Cycle (S-N) curves



Research Engineer, Transmission Research Centre, Hyundai WIA - Namyang, Korea

Sep, 2006 ~ Aug, 2010 - 4 yrs

Gearbox designer for a range of Hyundai EV and FCV.

- Designed bespoke single speed gearboxes from scratch for Hyundai Electric Car (i10 Blueon) and Fuel Cell Vehicles (Tuscan iX & Mohave).
- Responsible for gearbox design that includes gearset design (macro & micro optimization), gear stress & bearing life calculations, NVH correlation, component modelling (incl. housing), 2D drawings and tolerance stack up and release management in Enovia.