SEOK LEE

Enthusiastic on building organization:

14 years experience including engineering, technical research, leading technical team Comfortable and confident in team dynamics by executing humble minded leadership Able to successfully navigate uncertain and unplanned events to find effective and efficient resolution Able to determine strengths and weaknesses to correctly guarantee advancement through projects

Understanding in diverse office settings and global expansion:

Experience in diverse office settings; various countries (6.5 years in European assignment) Understanding of global expansion and corporate strategy/ organization setting

Passion for business and engineering data analytics:

Completed Masters in Engineering for mathematical modeling and MBA in business data an Knowledgeable in: mathematical dynamic modeling, controls design, plant modeling, data analysis, virtual 3D simulation (Unreal), model based design , and capable of coding (R, MATLAB, C++,C, Python). Eager to enhance my knowledge and understanding in various areas in both business and engineering Passion for solving complex problem in data driven approach

EDUCATION

10/2017–08/2021 **University of Illinois**
MBA-Financial Mngt|Value chain Mngt|Managerial Economics&Business Analysis|Strategic leadership & Mngt|Business Analytics|Global Challenge in Business
Urbana, IL

01/2005–04/2010 **University of Michigan**
M.S. in Mechanical Engineering
Dearborn, MI

1998–2005 **Korea Aerospace University**
Bsc. in Mechanical Engineering
Korea

CONTACT INFO

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TOOLS

Data analytics: R | Python | MATLAB

Engineering: Simulink | CarSIM | AMESim | Targetlink | CAN | C++ | Tensorflow | OpenCV | Keras | Unreal

LICENSE

Professional Engineer(Mechanical Eng- Thermal & Fluid, MI license # 6201066645)

Udacidty Self driving car #5R7RH56H

Last updated on 2022-01-31.

NOTABLE EXPERIENCE

06/2021–present

Canoo

Senior Technical Team Lead - Electronics — Torrance, CA, USA

- Upon graduating with an MBA, I wanted to explore a broader spectrum of vehicle integration work. I am interested in how a vehicle is designed, developed, tested, and launched. How a company constantly pleases consumers' eyes and pockets, but another fails to meet consumers' appetite.
- I also wanted to experience how a new company becomes an incumbent. Therefore, I chose to make a transition to a start-up. The day to day job includes, but is not limited to conducting engineering electronic requirement definition for future products- benchmark, initial market research, pinpoint technology gap, share insight, and set the roadmap for corporate ADAS, On Board Charger (OBC), telematics, V2X and infotainment strategy.

04/2019–06/2021

Ford Motor Company

Research Engineer- ADAS simulation — Dearborn, MI, USA

- I developed a s/w interface to take ray tracing radar signals into vector transform to feed to ADAS controller for simulating driving condition. Later, I developed 3d scenes in urban parking using a 3d gaming engine (aka Unreal).
- In the end, I integrated 3d scenes and developed a sensor interface to test out certain traffic scenarios (i.e. highway following, parking lot) to test out various ECU controls s/w codes in vehicle system level under realistic simulation environment. Before exit, I do demonstrate the s/w testing framework to other engineers for training purposes to enable them to get familiar with desktop testing capability

11/2015–04/2019

Ford Motor Company

Autonomous Controls Engineer — Dearborn, MI, USA

- I tested in-house developed chassis controls s/w against requirements using MATLAB/Simulink tool. Later, I refactored (effectively simplified) the developed software (s/w) to conform to ISO 26262 (functional safety) standard.
- Later, for testing purposes, I developed the simplified, but approximated mathematical models and suggested s/w architecture to test out s/w code under real-time simulation framework.
- In the end, I managed to integrate refactored s/w into a driving simulation environment to conduct repetitive testing. This entire work received 3 Ford internal awards which led me to focus on more simulation work for my next move.

04/2014–
11/2015

Cummins Engine Company
Diagnostic Team Leader — Columbus, IN, USA

- I came back to the US headquarters after 6.5 years of overseas work. I led a team of calibration engineers. The calibration contents are same, but I was asked to deliver wider variety of products (different hardware impacting thermal event)
- I looked for how to make our team better and thrive spontaneously by demonstrating leadership by example. I tried for team members to experience different management style. The job included employee training, coordinated vehicle/ engine testing works to meet the environmental regulatory requirement while I conducted data mining, data analysis to check the field performance of calibration to approve quality contents in the field operation.
- After completion of a project, I pursued an opportunity to utilize my learned knowledge from graduate school in the passenger vehicle industry.

07/2011–
04/2014

Cummins Engine Company
Thermal Controls Technical Specialist — Darlington, UK

- I worked in an international site in the UK as an expat after a Dutch assignment. I did diagnostics development work including s/w validation at vehicle level and calibration contents development to meet European emission regulations. The work also involved data mining and analysis of the large fleet data set.
- I led a team of engineers to maintain Hardware in the Loop (HiL) testing equipment. Before exit, I demonstrated the capability and its usefulness and readiness to validate s/w before conducting field or vehicle testing.

10/2007–
07/2011

Cummins Engine Company
Senior Control Engineer — Eindhoven, the Netherlands

- I started as a controls engineer which handled input/output processing of devices (sensors, actuators), rapid prototyping of controllers, controls integration work with an emphasis on wiring harness design, hardware validation, and CAN (Controller Area Network) signal definition.
- I spent a handful of time for s/w validation and testing at HiL (Hardware in the Loop) and vehicle level. This work was carried out as a customer facing role at an international site, a Dutch truck company (DAF trucks, NV). I adapted cultural differences quickly while embracing and valuing Dutch culture to harmonize between two entities.

01/2005–
03/2010

Research Assistant
University of Michigan — Dearborn, MI

- I came to the US to study abroad because I won full tuition supported research assistant scholarship to work on mathematical modeling and simulation for nonlinear dynamic systems.
- Although the school is a regional school and relatively unknown to the public, I did my best to produce a fruitful outcome. In the end, I was able to publish 2 papers and 1 technical report before graduation.

PUBLICATIONS

2008

Investigation of Sliding-Surface Design on the Performance of Sliding Mode Controller in Antilock Braking Systems

IEEE Vehicular Technology, Volume 57 issue 2

Taehyun Shim, Sehyun Chang, **Seok Lee**

2007

Technical report- Brake design and modeling of Low Mass Vehicle

IAVS (Institute of Advance Vehicle System), University of Michigan-Dearborn

Seok Lee

2006

Development of a Brake System for Lightweight Vehicle

IMECE2006-15437, pp. 229-238; 10 pages

Seok Lee , Taehyun Shim , Byung-Kwan Cho