

# SEOK LEE

## Quality level-headed leadership:

- 14 years experience in engineering leadership, technical research, business development between 3 companies
- Comfortable and confident in team dynamics and leadership
- Strength in support and directive driven within teams
- Able to successfully navigate uncertain and unplanned events to find effective and efficient resolution
- Experience in building correct teams for different projects
- Able to determine strengths and weaknesses to correctly guarantee advancement through projects

## Understanding in diverse office settings:

- Experience in diverse office settings; various countries (6.5 years in European assignment)
- Adaptable to different expectations within different companies
- Focused on growth within companies for myself and coworkers to advance the company itself
- Heightened interpersonal skills

## Passion for Data Analysis and Engineering:

- Completed Masters in Engineering and MBA in Business Analytics, Globalization
- 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
- Quick to learn new systems
- Passion for solving complex problem Looking for growing together with the company:
- Wanting a partnership with a company I can grow with
- Willing to relocate for position if the company is the correct fit



## 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)

Udacity Self driving car  
#5R7RH56H

*Last updated on 2022-01-28.*



## 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