



Hyeonbeen Lee

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PERSONAL INFORMATION

Legal Name:	Hyeonbeen Lee	Date of birth:	July 4th, 1996
Nationality:	Republic of Korea (South)	Address:	6-3, Hoenamu-ro 39gil, Yongsan-gu, Seoul, South Korea
Military service:	Honorably discharged, Marine Corps Sergeant (May 2017~Feb. 2019)	Research interest:	Time series forecasting, Reinforcement learning, Sequential decision

EDUCATION

Banpo High School, Science-specialized Track Mar. 2012 — Feb. 2015
Kyung Hee University, Dept. of Mechanical Engineering Mar. 2015 — Feb. 2022
Bachelor of Engineering (Supervisor: Shin-kyu Jeong, Jin-gyun Kim) GPA(Major): 3.84/4.5, GPA: 3.87/4.5
Thesis: *'Data-driven aerodynamic coefficient prediction using
deep neural network and PARSEC airfoil parameterization'*
Kyung Hee University, Dept. of Mechanical Engineering Mar. 2022 — Feb. 2024
Master of Engineering (Supervisor: Jin-gyun Kim) GPA: 4.33/4.5
Thesis: *'Composite neural network with differential propagation
for modeling impulsive nonlinear dynamic systems'*

CAREER

8DIVISION, Flagship Store Staff Feb. 2024 — Present

- Assistant store manager
- **Foreign clients hospitality and supportive interpretation**
- **Creative SNS management (@8division, @8division_journal)**
- Fitting model and in-house stylist
- Robotic process automation
- Sales analysis and data-processing

Freelance model May 2024 — Present

- @gyoureekim SS2025 fitting model for London Fashion Week
- @san263.1 FW2024/SS2025 fitting model
- @8division, @8division_journal store fitting model
- @armed_dept FW2024 Lookbook
- Personal works with photographers: @chtewon, @wyw_kiki98, @leejaehoon, @jngsnghun
- Magazines: @pap_magazine, @prism.mag
- Music videos: SEVENTEEN - Eyes on You (2024), creespy - You're Just My Type (2024)

LANGUAGE

- Korean
 - Mother tongue
- English
 - **Certification - New TEPS 513/600** (equivalent to 980/990 in ETS TOEIC)
 - **Certification - ACTFL OPI English AH(Advanced High)**
 - Expertised communication ability in near-native level
 - **Rich social experiences with global fashion creatives and designers**

- Published two papers for international science journals as first and co-author
- Abundant experiences at **international conference presentations, research meetings, and email communication in expert level**
- Japanese
 - Able to speak daily-level conversations
 - Understands movies and TV shows in Japanese without subtitles

GLOBAL NETWORKING

Possesses **communication, collaboration and socialization experiences with global fashion brands and creatives listed below:**

English speakers

- | | | |
|----------------------------|----------------------------|-------------------------------------|
| • Stefan Cooke & Jake Burt | • Sabukaru Magazine | • Betsy Johnson (in support of OSS) |
| • Thomas Tistounet (RIER) | • Pepe (ThinkingMU) | • Jonathan Choi (FFFPPostalService) |
| • Luca Hamers | • GR10K | • Max Schaefer (Untitled Showroom) |
| • Bonnie & Clyde | • Samutaro | • Hiking Patrol |
| • _J.L-A.L_ | • Stockholm Surfboard Club | • JUS Stockholm |

Japanese speakers

- | | | |
|-------------------------------|-----------------------|------------------------|
| • Nepenthes | • KAMIYA | • Kota Kawai (PickYou) |
| • COMOLI | • Ken Mitsuishi | • NorthWorks |
| • Manabu Kamo (Huntism Tokyo) | • OURs (YouTube OURs) | • Junction JP |
| • Koji Yoshimura (HLVTC) | | |

PERSONAL ANALYSIS

Strength

- Smooth communication ability
 - **Lots of experiences in creative fields** such as fashion photo and videographies, pop-up events, and collaborations
 - Capable of **building fair, continuing relationship with clients** in the industry
 - Maintains friendly relationship with organization members in-and-out of workplace
 - Nationality never mattered
- Sensitive to fashion trends
 - With long-term interest to fashion throughout life, sensitive to new trends and have great understanding over the culture
 - Continuously keeps eyes on emerging trends and trending issues
- Spontaneous and dynamic attitude
 - Deals given objectives dynamically by examining candidate options and struggling to suggest improvements, rather than robotically processing listed todos.
 - **Case (1)** After taking charge of store's Instagram accounts management, proactively posted creative stories and reels with fresh ideas using in-store items to resolve staticity in past posts. This could increase followers from 5,700 to 7,000, reach up to 455%, and engagement up to 425%.
 - **Case (2)** Enhanced workflow continuity and efficiency by introducing collaboration tools like Notion, Microsoft365 and Google Sync which were never considered before.
- Computer and data specialist with Master's degree in AI research
 - Performant at expert-level data analysis, processing, **visualization**, along with **fluent presentation skills**
 - Friendly at computer-related tasks
 - **Case (1)** For store sales report and future business plan contribution, visualized 3-years sales data with advanced visualization and data analysis such as trend extraction, histogram and bar plots, and category-wise classifications.

- **Case (2)** To resolve redundant robotic process while registering new products in store POS, automated the whole product registration process using Python Selenium. This dramatically reduced human power consumption for pop-up store preparations.
- **Case (3)** To further enhance usability of the POS from **Case (2)**, directly requested functionality requirements to POS developers in detail using R&D knowledges. Greatly shortened scheduled update due as a result.
- Fluent language skills
 - Capable of performing all strengths above without language problems.

Weakness

- Attempting to change existing workflow frequently
 - Once got negative feedback regarding my frequent attempts to change already-established workflow, even though they were intended for efficiency and improvements.
 - After perceiving the point, paid more attention to respect established procedures and workflows.

PUBLICATIONS

1. S. Han, G.E. Jeong, **H. Lee**, W.S. Choi, J.G. Kim, “Multi-body dynamics model for spent nuclear fuel transportation system under normal transport test conditions”, *Nuclear Engineering and Technology (Q1, JCR-IF Top 3.5% in Nuclear Science & Technology)*, 55(11), 4125-4133.
2. **H. Lee**, S. Han, H.S. Choi, J.G. Kim (2023). “cNN-DP: Composite neural network with differential propagation for impulsive nonlinear dynamics”, *Journal of Computational Physics (Q1, JCR-IF Top 4.5% in Physics, Mathematical)*, 112578.
3. **H. Lee**, J. Han, T. Yeo, J.G. Kim. “Stochastic Fourier Transformer for interpretable real-time real-world robot force forecasting”, in preparation.

PROJECTS

Mar. 2022 — Oct. 2024	Deep-learning based reaction force and torque prediction model development for underwater ground cutting robot using experimental measurements and dynamic simulation data, Korea Research Institute of Ships and Ocean Engineering (KRISO). (github.com/hyeonbeenlee/TimeSeriesSeq2Seq)
Nov 2021 — Jan. 2024	cNN-DP: Composite neural network with differential propagation for impulsive nonlinear dynamics, Modeling & Simulation Lab. (github.com/hyeonbeenlee/cNN-DP)
Sep. 2021 — Jan. 2024	Metamodel generation and evolution procedures for flexible multibody dynamics, FunctionBay Inc.
Mar. 2023 — Jun. 2023	Segment Anyone: Fine-tuned Segment-Anything-Model (SAM) for human-collaborative robots, Kyung Hee University Dept. of Artificial Intelligence. (github.com/hyeonbeenlee/segment-anything-fine-tuning)
Dec. 2022 — Jun. 2023	RecurDyn Automation using Python, Modeling & Simulation Lab. (github.com/hyeonbeenlee/RecurDynPython)
Sep. 2021 — Oct. 2022	Development of ground · sea transportation test simulation model using multibody dynamics and DNN-based metamodel, Korea Atomic Energy Research Institute (KAERI).

CONFERENCES

Jun. 9 2024 Madison, Wisconsin, USA	J. Han, J.B. Han, S.S. Kim, M.H. Kim, Y.H. Kim, H. Lee , J.G. Kim, T.K. Yeu. “Digital twin model of underwater construction robot for real-time grinding simulation”, 7th International Conference on Multibody System Dynamics.
Nov. 1 2023 Incheon, South Korea	H. Lee , J. Han, T. Yeo, J.G. Kim. “Real-time multi-horizon reaction force forecasting of ocean robot using interpretable Transformer”, Annual Conference, Korean Society of Mechanical Engineers (Oral Presentation).

May 18 2023 Busan, South Korea	H. Lee, S. Han, H.S. Choi, J.G. Kim. “Meta-modeling of nonlinear impulsive dynamics using composite neural network model with differential propagation”, Conference on Engineering Reliability, Korean Society of Mechanical Engineers (Oral Presentation).
Mar. 23 2023 Jeju, South Korea	H. Lee, S. Han, H.S. Choi, J.G. Kim. “Meta-modeling of nonlinear impulsive dynamics using composite neural network model with differential propagation”, Conference on Dynamics and Control, Korean Society of Mechanical Engineers (Oral Presentation).
Feb. 16 2023 Austin, Texas, USA	H. Lee, S. Han, H.S. Choi, J.G. Kim. “Composite neural network framework for modeling impulsive nonlinear dynamic responses”, 41th International Modal Analysis Conference (IMAC) (Oral Presentation).
Dec. 4 2022 Jeju, South Korea	H. Lee, S. Han, G.E. Jeong, J.G. Kim. “Development of multibody dynamics trailer model using normal transportation test data and DNN based surrogate model generation”, Fall conference, Korean Society for Noise and Vibration Engineering (Oral Presentation).

AWARDS AND CERTIFICATES

- **New TEPS:** 513/600 (equivalent to TOEIC 980/990) No.0111736, Valid, May 13 2023
- **OPI English:** AH (Advanced High) 2A7617334333, Valid, Nov. 14 2023
- **RA Scholarship (80% tuition)** Kyung Hee University, Sep. 01 2023
- **Exellence Paper Award** Korean Society of Mechanical Engineers, No.2023-083, Aug. 25 2023
- **RA Scholarship (80% tuition)** Kyung Hee University, Mar. 01 2023
- **RA Scholarship (80% tuition)** Kyung Hee University, Sep. 01 2022
- **Excellence Scholarship (Full tuition)** Kyung Hee University, Mar. 01 2021
- **TOEIC:** 925/990 No.605083, Expired, Nov 25 2018

MISCELLANEOUS

Representative Administrative Assistant	Kyung Hee University, Sep 2022 — Present
Seminar: IAS18 Workshop&Tutorials	Intl. Conference on Intelligent Autonomous Systems, Jul 2023
Seminar: AI Summer School 2022	Korean Society of Mechanical Engineers, Aug 2022
Teaching Assistant (System Dynamics)	Modeling & Simulation Lab, Mar 2022 - Jun 2023
Seminar: AI Summer School 2021	Korean Society of Mechanical Engineers, Aug 2021
Seminar: AI, Data Driven Models&ML	National Agency Finite Element Methods and Standard, Apr 2021
Undergraduate Research Internship	Modeling & Simulation Lab, Jan 2021 — Feb 2022
48th Student Council	Kyung Hee University College of Engineering, Feb 2019 — Jan 2020
R.O.K.-U.S. Combined Marine Corps Interpreter	1st Marine Div., ROKMC, Sep 2017 — Feb 2019