

# Seoyoung Hong

## PERSONAL DATA

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- Birth: Jan 17<sup>th</sup>, 1998
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## RESEARCH INTERESTS

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- **Machine Learning / Deep Learning**
  - ✓ Recommender Systems
  - ✓ Predictive Modeling
  - ✓ Time-series Forecasting

## EXPERIENCE

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Jan. 2024 - Present	<b>Boeing Korea</b> Machine Learning Researcher at Boeing Korea (BKETC)	Seoul, Korea
Jan. 2023 - Jun. 2023	<b>Georgia Institute of Technology</b> Visiting researcher in Computational Science & Engineering (Advisor: Prof. Srijan Kumar)	Atlanta, US
Oct. 2020 - Jan. 2021	<b>Google Machine Learning Bootcamp</b>	Seoul, Korea

## EDUCATION

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Sep. 2021 - Aug. 2023	<b>Yonsei University</b> Department of Artificial Intelligence M.S. in Artificial Intelligence (Advisor: Prof. Noseong Park)	Seoul, Korea
Mar. 2016 - Feb. 2021	<b>Kyunghee University</b> Department of Business Administration B.S. in Business Administration Department of Software (Data Science Track) B.S. in Software	Seoul, Korea Yongin, Korea

Jan. 2018 -  
Apr. 2018

**University of Leicester**  
Exchange Student

Leicester, UK

## PUBLICATIONS

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Jul. 2023

### ICML 2023

Jeongwhan Choi, **Seoyoung Hong**, Noseong Park, and Sung-Bae Cho, "GREAD: Graph Neural Reaction-Diffusion Networks," *International Conference on Machine Learning. PMLR*, 2023 [\[Link\]](#)

- Keywords: Graph Neural Networks (GNNs), Classification

Jul. 2023

### SIGIR 2023

Jeongwhan Choi, **Seoyoung Hong**, Noseong Park, and Sung-Bae Cho, "Blurring-Sharpening Process Models for Collaborative Filtering," *Proceedings of the 46th International ACM SIGIR Conference on Research and Development in Information Retrieval*, 2023 [\[Link\]](#)

- Keywords: Recommender Systems, Collaborative Filtering, Score-based Generative Models

Dec. 2022

### IEEE BigData 2022 (Best Student Paper)

**Seoyoung Hong**, Minju Jo, Seungju Kook, Jaeun Jung, Hyowon Wi, Noseong Park, and Sung-Bae Cho, "TimeKit: A Time-series Forecasting-based Upgrade Kit for Collaborative Filtering," *2022 IEEE International Conference on Big Data (IEEE BigData)*, 2022 [\[Link\]](#)

- Keywords: Time-series Forecasting, Recommender Systems, Collaborative Filtering

Oct. 2022

### CIKM 2022

**Seoyoung Hong**, Heejoo Shin, Jeongwhan Choi, and Noseong Park, "Prediction-based One-shot Dynamic Parking Pricing," *Proceedings of the 31st ACM International Conference on Information & Knowledge Management*, 2022 [\[Link\]](#)

- Keywords: Predictive Modeling, Prediction-based Optimization, Dynamic Pricing, Regression

Dec. 2021

### ICDM 2021

Sheoyon Jhin, Heejoo Shin, **Seoyoung Hong**, and Noseong Park, "Attentive Neural Controlled Differential Equations for Time-series Classification and Forecasting," *2021 IEEE International Conference on Data Mining (ICDM)*, 2021 [\[Link\]](#)

- Keywords: Time-series Forecasting, Time-series Classification

Aug. 2021

### KDD 2021

Duanshun Li, Jing Liu, Jinsung Jeon, **Seoyoung Hong**, Thai Le, Dongwon Lee, and Noseong Park, "Large-Scale Data-Driven Airline Market Influence Maximization," *Proceedings of the 27th ACM SIGKDD Conference on Knowledge Discovery & Data Mining (KDD)*, 2021 [\[Link\]](#)

- Keywords: Predictive Modeling, Prediction-based Optimization, Regression

Dec. 2020

### KSC 2020

**Seoyoung Hong**, Midan Shim, and Daeho Lee, "Spelling Correction System for Korean Internet Language Using Transformer Model," *Proceedings of the Korea Software Congress (KSC)*, 2020 [\[Link\]](#)

- Keywords: Natural Language Processing

## AWARDS

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- Dec. 2022      **IEEE Bigdata 2022 Best Student Paper Award**  
Hosted by Institute of Electrical and Electronics Engineers (IEEE)
- Feb. 2021      **Korea Software Congress 2020 (KSC 2020) Junior Paper Awards, 4th Prize**  
Hosted by the Korean Institute of Information Scientists and Engineers
- Sep. 2020      **Big Data Analysis Awards 2020 (Big Contest 2020), 2nd Prize**  
Hosted by the Korean National Information Society Agency

## CERTIFICATIONS

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- Mar. 2023      **OPIc (Advanced Mid)**  
Test of English Speaking Proficiency
- Oct. 2020      **SQLD**  
Structured Query Language Developer

## SKILLS

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- **Python** / C++
- **PyTorch** / Scikit-learn / Pandas / Tensorflow
- **SQL**