

# 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><br>Machine Learning Researcher at Boeing Korea (BKETC)   | Seoul, Korea |
| Jan. 2023 - Jun. 2023 | <b>Georgia Institute of Technology</b><br>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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|                       |   |                               |
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| Sep. 2021 - Aug. 2023 | <b>Yonsei University</b><br>Department of Artificial Intelligence<br>M.S. in Artificial Intelligence (Advisor: Prof. Noseong Park)  | Seoul, Korea                  |
| Mar. 2016 - Feb. 2021 | <b>Kyunghee University</b><br>Department of Business Administration<br>B.S. in Business Administration<br>Department of Software (Data Science Track)<br>B.S. in Software | Seoul, Korea<br>Yongin, Korea |
| Jan. 2018 - Apr. 2018 | <b>University of Leicester</b><br>Exchange Student  | Leicester, UK                 |

## PUBLICATIONS

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| Aug. 2024 | <b>IJCAI 2024</b><br><b>Seoyoung Hong</b> , Jeongwhan Choi, Yeon-Chang Lee, Srijan Kumar, Noseong Park, “SVD-AE: Simple Autoencoders for Collaborative Filtering,” <i>Proceedings of the 33rd International Joint Conference on Artificial Intelligence (IJCAI)</i> , 2024 <a href="#">[Link]</a> <ul style="list-style-type: none"><li>• Keywords: Recommender Systems, Collaborative Filtering, Autoencoders</li></ul> |
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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 (CIKM)*, 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 | <b>OPIc (Advanced Mid)</b><br>Test of English Speaking Proficiency |
| Oct. 2020 | <b>SQLD</b><br>Structured Query Language Developer                 |

## SKILLS

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- **Python**
- **PyTorch** / Scikit-learn / Pandas / Tensorflow
- **MLOps**
- **SQL**