**YOUNG JIN PARK**

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<https://young-j-park.github.io/>

**education**

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| **Massachusetts Institute of Technology (MIT)**  *Ph.D. Candidate at MIT LIDS.* GPA: 5.0/5.0 | Cambridge, MA  Sept. 2022 – June 2026 |
| * Supervisor: Navid Azizan * Working on the *Uncertainty Quantification in Foundation Models*. | |
| **Korea Advanced Institute of Science and Technology (KAIST)**  *M.S. in Aerospace Engineering*. GPA: 4.12/4.3 | Daejeon, Korea  Feb. 2017 – Feb. 2019 |
| * Supervisor: Han-Lim Choi * Thesis: *Interpretable Unsupervised Learning of Bayesian Nonparametric Dynamic State-Space Model*. | |
| **Korea Advanced Institute of Science and Technology (KAIST)**  *B.S. in Aerospace Engineering & Mathematical Sciences (minor)*. GPA: 4.03/4.3 | Daejeon, Korea  Mar. 2013 – Feb. 2017 |
| * KAIST Presidential Fellow (awarded to top 10 students from the Class of 2017) |  |
| **Korea Science Academy of KAIST (KSA)**  GPA: 4.00/4.3 (graduated with academic excellence award) | Busan, Korea  Feb. 2010 – Feb. 2013 |

# Professional eXPERIENCE

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| **Mitsubishi Electric Research Laboratories (MERL)**  *Intern* | Cambridge, MA  May 2024 – Aug. 2024 |
| **MIT-IBM Watson AI Lab**  *Visiting Student Researcher* | Cambridge, MA  Mar. 2024 – May 2024 |
| **NAVER AI Lab | CLOVA**  *Machine Learning Research Engineer* | Seongnam-si, Korea  Feb. 2019 – Aug. 2022 |

**Publications**

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| \*Authors contributed equally; IF: Impact Factor |
| **Peer-Reviewed Conference Proceedings** |
| 1. **Understanding and Quantifying Reliability in Object Detection Transformers** (preprint)   Y.J. Park\*, C. Sobolewski\*, A. Sharma, and N. Azizan. |
| 1. **Exploring the Promise of Time-Series Foundation Models in Real-World Industrial Forecasting** (preprint)   Y.J. Park, J. Liu, F. Germain, T. Koike-Akino, G. Wichern, and A. Chakrabarty. |
| 1. **Quantifying Representation Reliability in Self-Supervised Learning Models**   Y.J. Park, H. Wang, S. Ardeshir, and N. Azizan.  In *Conference on Uncertainty in Artificial Intelligence (UAI),* 2024 &  In *RSS 2023 Workshop @ Safe Autonomy (Spotlight).* |
| 1. **A Large-Scale Ensemble Learning Framework for Demand Forecasting**   Y.J. Park, D. Kim, F. Odermatt, J. Lee, and K.M. Kim.  In *IEEE International Conference on Data Mining (ICDM),* 2022. *(Full Paper, Acceptance rate: 9.77%)* |
| 1. **Distilling a hierarchical policy for planning and control via representation and reinforcement learning**   J.S. Ha\*, Y.J. Park\*, H.J. Chae, S.S. Park, and H.L. Choi.  In *IEEE International Conference on Robotics and Automation (ICRA)*, 2021. |
| 1. **A Worrying Analysis of Probabilistic Time-series Models for Sales Forecasting**   S. Jung\*, K.M. Kim\*, H. Kwak\*, and Y.J. Park\*.  In *Neural Information Processing Systems (NeurIPS), ICBINB Workshop, PMLR*, 2020. *(Best Poster Awards)* |
| 1. **Adaptive Path-Integral Autoencoders: Representation Learning and Planning for Dynamical Systems**   J.S. Ha, Y.J. Park, H.J. Chae, S.S. Park, and H.L. Choi.  In *Neural Information Processing Systems (NeurIPS)*, 2018. |
| **Journal Publications / Preprints** |
| 1. **Online Gaussian Process SSM: Learning and Planning for Partially Observable Dynamical Systems**   S.S. Park, Y.J. Park, Y. Min, and H.L. Choi.  *International Journal of Control, Automation and Systems*, 2022. [IF: 3.314] |
| 1. **A neural process approach for probabilistic reconstruction of no-data gaps in lunar digital elevation maps**   Y.J. Park, and H.L. Choi.  *Aerospace Science and Technology*, 2021. [IF: 5.107] |
| 1. **Bayesian Nonparametric SSM for System Identification with Distinguishable Multimodal Dynamics**   Y.J. Park, S.S. Park, and H.L. Choi.  *Journal of Aerospace Information Systems*, 2021. [IF: 1.076] |
| 1. **Efficient Sensor Network Planning Method using Approximate Potential Game.**   S.J. Lee, Y.J. Park, and H.L. Choi.  *International Journal of Distributed Sensor Networks*, 2018. [IF: 1.787] |
| 1. **Deep Matrix-variate Gaussian Process**   Y.J. Park, P.M. Tagade, and H.L. Choi.  In *UAI Workshop 2018:* *Uncertainty in Deep Learning & IEEE Access*, 2018. [IF: 4.098] |
| 1. **VQ-AR: Vector Quantized Autoregressive Probabilistic Time Series Forecasting** (Preprint)   K. Rasul, Y.J. Park, M. Ramström, and K.M. Kim. |
| 1. **One4all User Representation for Recommender Systems in E-commerce** (Preprint)   K. Shin, H. Kwak K.M. Kim, M. Kim, Y.J. Park, J. Jeong, and S. Jung |
| **Workshops & Late-Breaking Results (Short Papers)** |
| 1. **Uncertainty-Aware Meta-Learning for Multimodal Task Distributions**   C. Almecija, A. Sharma, Y.J. Park, and N. Azizan  In *Neural Information Processing Systems (NeurIPS), Workshop on Meta-Learning*, 2022. |
| 1. **Global-Local Item Embedding for Temporal Set Prediction**   S. Jung, Y.J. Park, J. Jeong, K.M. Kim, H. Kim, M. Kim, and H. Kwak.  In *ACM Recommender Systems (RecSys), Late-Breaking Results*, 2021. |
| 1. **Adaptive Memory using Dynamic Graph Networks for Staleness Problem in Recommender System**   I.J. Kwon, K.M. Kim, J. Jeong, K. Shin, Y.J. Park, and B.T. Zhang.  In *Knowledge Discovery and Data mining (KDD), Workshop on OARS*, 2021. (Spotlight) |
| 1. **Hop Sampling: A Simple Regularized Graph Learning for Non-Stationary Environments**   Y.J. Park, K. Shin, and K.M. Kim.  In *Knowledge Discovery and Data mining (KDD), Workshop on MLG*, 2020. |
| 1. **Multi-Manifold Learning for Large-scale Targeted Advertising System**   K. Shin, Y.J. Park, and K.M. Kim.  In *Knowledge Discovery and Data mining (KDD), AdKDD Workshop*, 2020. |
| 1. **div2vec: Diversity-Emphasized Node Embedding**   J. Jeong, J.M. Yun, H. Keam, Y.J. Park, Z. Park, and J. Cho.  In *ACM Recommender Systems (RecSys), Workshop on the IRS*, 2020. |
| 1. **Tripartite heterogeneous graph propagation for large-scale social recommendation**   K.M. Kim\*, D. Kwak\*, H. Kwak\*, Y.J. Park\*, S. Sim, J.H. Cho, M. Kim, J. Kwon, N. Sung, and J.W Ha.  In *ACM Recommender Systems (RecSys)*, *Late-Breaking Results*, 2019. |

# academic honors

**Awards**

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| *Wunsch Foundation Silent Hoist and Crane Award for excellence in a graduate student* — *Dept. of Mechanical Engineering, MIT* | Jul. 2024 |
| *Best Poster Awards* ­—ICBINB@NeuRIPS Workshop | Dec. 2020 |
| *M.S. Outstanding Paper Award* —Dept. of Aerospace Engineering, KAIST | Oct. 2019 |
| *3rd Place* — KSIAM-Math Works Problem Challenge | Nov. 2017 |
| *Exemplary Academic Achievement Award* —Dept. of Aerospace Engineering, KAIST | Sept. 2017 |
| *Summa Cum Laude (Graduation Honors)* — KAIST | Feb. 2017 |
| *3rd Place* — KSAS Undergraduate Student Paper Competition | Apr. 2016 |
| *Academic Honors Student* — Dept. of Aerospace Engineering, KAIST | Mar. 2015 |

**Fellowships / Scholarships**

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| *Shangzhi Wu (1985) Fellowship* | 2022 F. – 2023 S. |
| *Young-Han Kim Global Leader Scholarship* — Awarded to one M.S. student at KAIST | 2018 S. – 2018 F. |
| *GE Foundation Scholar-Leaders Program* — Administered by Fulbright and IIE | 2014 S. – 2016 F. |
| *Boeing Scholarship* | 2014 S. – 2016 F. |
| *Samsung Electronics JFL Scholarship* | 2013 S. – 2016 F. |
| *KAIST Presidential Fellowship*— Awarded to top 10 students from the Class of 2017 | 2013 S. – 2016 F. |