YOUNG JIN PARK

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EDUCATION

MASSACHUSETTS INSTITUTE OF TECHNOLOGY (MIT) — Cambridge, MA
Ph.D. Candidate at MIT LIDS. GPA: 5.0/5.0 — Sept. 2022 – June 2026
- Supervisor: Navid Azizan
- Working on the *Uncertainty Quantification in Foundation Models*.

KOREA ADVANCED INSTITUTE OF SCIENCE AND TECHNOLOGY (KAIST) — Daejeon, Korea
M.S. in Aerospace Engineering. GPA: 4.12/4.3 — 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) — Daejeon, Korea
B.S. in Aerospace Engineering & Mathematical Sciences (minor). GPA: 4.03/4.3 — Mar. 2013 – Feb. 2017
- KAIST Presidential Fellow (awarded to top 10 students from the Class of 2017)

KOREA SCIENCE ACADEMY OF KAIST (KSA) — Busan, Korea
GPA: 4.00/4.3 (graduated with academic excellence award) — Feb. 2010 – Feb. 2013

PROFESSIONAL EXPERIENCE

MITSUBISHI ELECTRIC RESEARCH LABORATORIES (MERL) — Cambridge, MA
Intern — May 2024 – Aug. 2024

MIT-IBM WATSON AI LAB — Cambridge, MA
Visiting Student Researcher — Mar. 2024 – Present

NAVER AI LAB | CLOVA — Seongnam-si, Korea
Machine Learning Research Engineer — Feb. 2019 – Aug. 2022

PUBLICATIONS

*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.
2. **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.
3. **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).*
4. **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%)*
5. **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.
6. **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)*

7. **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

8. **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]
9. **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]
10. **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]
11. **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]
12. **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]
13. **VQ-AR: Vector Quantized Autoregressive Probabilistic Time Series Forecasting** (Preprint)
    K. Rasul, Y.J. Park, M. Ramström, and K.M. Kim.
14. **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)

15. **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.
16. **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.
17. **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)
18. **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.
19. **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.
20. **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.
21. **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

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

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.