

# YOUNG JIN PARK

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## EDUCATION

<b>MASSACHUSETTS INSTITUTE OF TECHNOLOGY (MIT)</b> <b>Ph.D. Student at MIT LIDS. GPA: 5.0/5.0</b> <ul style="list-style-type: none"><li>Supervisor: Prof. Navid Azizan (<a href="mailto:azizan@mit.edu">azizan@mit.edu</a>)</li><li>Working on the <i>uncertainty quantification for unsupervised representations</i>.</li></ul>	Cambridge, MA 09/22 – 08/26
<b>KOREA ADVANCED INSTITUTE OF SCIENCE AND TECHNOLOGY (KAIST)</b> <b>M.S. in Aerospace Engineering. GPA: 4.12/4.3</b> <ul style="list-style-type: none"><li>Supervisor: Prof. Han-Lim Choi (<a href="mailto:hanlimc@kaist.ac.kr">hanlimc@kaist.ac.kr</a>)</li><li>Thesis: <i>Interpretable Unsupervised Learning of Bayesian Nonparametric Dynamic State-Space Model</i>. (Received Departmental M.S. Outstanding Paper Award)</li></ul>	Daejeon, Korea 02/17 – 02/19
<b>KOREA ADVANCED INSTITUTE OF SCIENCE AND TECHNOLOGY (KAIST)</b> <b>B.S. in Aerospace Engineering &amp; Mathematical Sciences (minor). GPA: 4.03/4.3</b> <ul style="list-style-type: none"><li>KAIST Presidential Fellowship (awarded to top 10 students from the Class of 2017)</li></ul>	Daejeon, Korea 03/13 – 02/17
<b>KOREA SCIENCE ACADEMY OF KAIST (KSA)</b> <ul style="list-style-type: none"><li>Graduated with Academic Excellence Award</li></ul>	Busan, Korea 02/10 – 02/13

## WORK EXPERIENCE

<b>NAVER CLOVA   Biz AI</b> <i>Machine Learning Research Engineer</i> <ul style="list-style-type: none"><li>Developed a user modeling using LLMs.</li><li>Developed a 60M-scale recommender system.</li><li>Developed a 45M-scale ensemble forecasting system.</li><li>Developed ML pipelines – including data ingestion, processing, model training, and inference – for the aforementioned large-scale, real-world systems.</li></ul>	Seongnam-si, Korea 02/19 – 08/22
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## PROGRAMMING SKILLS & EXPERIENCES

- Python (Proficient) / SQL & Data Analysis (Proficient) / Deep Learning Frameworks (Proficient)
- 3+ years of professional experiences at NAVER
- 2 years of MS research experiences at KAIST

## RESEARCH SKILLS

- Uncertainty quantification & Probabilistic deep learning.
- User behavior modeling with large-language models (LLMs).
- Large-scale ensemble learning.
- Graph representation learning.
- Hierarchical reinforcement learning.

## PUBLICATIONS

\*Authors contributed equally; IF: Impact Factor

### Selected Publications

- Representation Reliability and Its Impact on Downstream Tasks**  
Y.J. Park, H. Wang, S. Ardeshir, N. Azizan  
*Preprint. arXiv:2306.00206, 2023. (Presented in RSS 2023 Workshop @ Safe Autonomy)*

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

#### Other Publications

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

#### Workshops & Late-Breaking Results (Short Papers)

13. **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.
14. **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.
15. **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)
16. **Hop Sampling: A Simple Regularized Graph Learning for Non-Stationary Environments**  
Y.J. Park, K. Shin, and K.M. Kim.

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In *Knowledge Discovery and Data mining (KDD), Workshop on MLG*, 2020.

17. **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.

18. **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.

19. **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.

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## ACADEMIC HONORS

<i>Shangzhi Wu (1985) Fellowship</i>	2022 Fall – 2023 Spring
<i>Best Poster Awards, ICBINB@NeurIPS Workshop</i>	2020
<i>M.S. Outstanding Paper Award, Dept. of Aerospace Engineering, KAIST</i>	2019
<i>Young-Han Kim Global Leader Scholarship — Awarded to one M.S. student at KAIST</i>	2018
<i>Summa Cum Laude (Graduation Honors), KAIST</i>	2017
<i>GE Foundation Scholar-Leaders Program administered by Fulbright</i>	2014-2016
<i>Boeing Korea Scholarship</i>	2014-2016
<i>Samsung Electronics JFL Scholarship</i>	2013-2016
<i>KAIST Presidential Fellowship — Awarded to ten students from the Class of 2017</i>	2013-2016