YOUNG JIN PARK

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

RESEARCH INTEREST

- Machine learning and its application to real-world systems
- Generalizable representation learning for dynamical systems.

EDUCATION

KOREA ADVANCED INSTITUTE OF SCIENCE AND TECHNOLOGY (KAIST) Daejeon, Korea
M.S. in **Aerospace Engineering** (GPA: 4.12/4.30) Feb 2019
- Supervisor: Han-Lim Choi, Ph.D.
- Thesis: "Interpretable Unsupervised Learning of Bayesian Nonparametric Dynamic State-Space Model."
- *Departmental M.S. Outstanding Paper Award*

KOREA ADVANCED INSTITUTE OF SCIENCE AND TECHNOLOGY (KAIST) Daejeon, Korea
B.S. in **Aerospace Engineering** & Minor in **Mathematical Sciences** (GPA: 4.03/4.30) Feb 2017
- *KAIST Presidential Fellowship* (awarded to ten students from the Class of 2017)
- *Departmental Exemplary Academic Achievement Award*

KOREA SCIENCE ACADEMY OF KAIST (KSA) Busan, Korea
- *Graduated with Academic Excellence Award* (GPA: 4.00/4.30) Feb 2013

PROFESSIONAL EXPERIENCE

NAVER CLOVA Seongnam-si, Korea
Research Engineer Feb 2019 - Present
- Developing a 45M-scale demand forecasting system using a self-supervised representation learning.
- Developed a 60M-scale recommender system using graph representation learning.

KISWE New Providence, NJ
Intern Jun 2016 - Aug 2016
- Implemented a prototype of interactive ads for the Kiswe's social video app.

PUBLICATIONS

*Authors contributed equally; IF: Impact Factor

Conferences & Journals

1. Y.J. Park, D. Kim, F. Odermatt, J. Lee, and K.M. Kim. "Forchestra: Towards a Scalable and Flexible Time Series Prediction Framework for Demand Forecasting."
   In *Knowledge Discovery and Data mining (**KDD**)*, 2022 (Submitted).
2. K. Rasul, Y.J. Park, M. Ramström, and K.M. Kim. "VQ-AR: Vector Quantized Autoregressive Probabilistic Time Series Forecasting."
   In *Knowledge Discovery and Data mining (**KDD**)*, 2022 (Submitted).
3. S.S. Park, Y.J. Park, Y. Min, and H.L. Choi. "Online Gaussian Process State-Space Model: Learning and Planning for Partially Observable Dynamical Systems."
   International Journal of Control, Automation and Systems, 2022. [IF: 3.314]
4. J.S. Ha*, Y.J. Park*, H.J. Chae, S.S. Park, and H.L. Choi. "Distilling a hierarchical policy for planning and control via representation and reinforcement learning."
   In *IEEE International Conference on Robotics and Automation (**ICRA**)*, 2021.
5. Y.J. Park, and H.L. Choi. "A neural process approach for probabilistic reconstruction of no-data gaps in lunar digital elevation maps."
   Aerospace Science and Technology, 2021. [IF: 5.107].

6. Y.J. Park, S.S. Park, and H.L. Choi. "Bayesian Nonparametric State-Space Model for System Identification with Distinguishable Multimodal Dynamics."
   Journal of Aerospace Information Systems, 2021. [IF: 1.076]
7. J.S. Ha, Y.J. Park, H.J. Chae, S.S. Park, and H.L. Choi. "Adaptive Path-Integral Autoencoders: Representation Learning and Planning for Dynamical Systems."
   In *Neural Information Processing Systems (**NeurIPS**)*, 2018.
8. Y.J. Park, P.M. Tagade, and H.L. Choi. "Deep Gaussian Process-Based Bayesian Inference for Contaminant Source Localization."
   IEEE Access, 2018. [IF: 4.098].
9. S.J. Lee, Y.J. Park, and H.L. Choi. "Efficient Sensor Network Planning Method using Approximate Potential Game."
   International Journal of Distributed Sensor Networks, 2018. [IF: 1.787]

Workshops & Late-Breaking Results

10. S. Jung, Y.J. Park, J. Jeong, K.M. Kim, H. Kim, M. Kim, and H. Kwak. "Global-Local Item Embedding for Temporal Set Prediction."
    In *ACM Recommender Systems (**RecSys**), Late-Breaking Results*, 2021.
11. I.J. Kwon, K.M. Kim, J. Jeong, K. Shin, Y.J. Park, and B.T. Zhang. "AdamDGN: Adaptive Memory using Dynamic Graph Networks for Staleness Problem in Recommender System."
    In *Knowledge Discovery and Data mining (**KDD**), Workshop on OARS*, 2021. **(Spotlight)**
12. S. Jung*, K.M. Kim*, H. Kwak*, and Y.J. Park*. "A Worrying Analysis of Probabilistic Time-series Models for Sales Forecasting."
    In *Neural Information Processing Systems (**NeurIPS**), ICBINB Workshop, PMLR*, 2020. (**Best Poster Awards**)
13. Y.J. Park, K. Shin, and K.M. Kim. "Hop Sampling: A Simple Regularized Graph Learning for Non-Stationary Environments."
    In *Knowledge Discovery and Data mining (**KDD**), Workshop on MLG*, 2020.
14. K. Shin, Y.J. Park, and K.M. Kim. "Multi-Manifold Learning for Large-scale Targeted Advertising System."
    In *Knowledge Discovery and Data mining (**KDD**), AdKDD Workshop*, 2020.
15. J. Jeong, J.M. Yun, H. Keam, Y.J. Park, Z. Park, and J. Cho. "div2vec: Diversity-Emphasized Node Embedding."
    In *ACM Recommender Systems (**RecSys**), Workshop on the IRS*, 2020.
16. 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. "Tripartite heterogeneous graph propagation for large-scale social recommendation."
    In *ACM Recommender Systems (**RecSys**)*, *Late-Breaking Results*, 2019.

ACADEMIC HONORS

AWARDS

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	Sep 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

SCHOLARSHIPS

Young-Han Kim Global Leader Scholarship — Awarded to one M.S. student at KAIST	2018
GE Foundation Scholar-Leaders Program — Administered by Fulbright and IIE	2014-2016
Boeing Scholarship	2014-2016
Samsung Electronics JFL Scholarship	2013-2016
KAIST Presidential Fellowship — Awarded to ten students from the Class of 2017	2013-2016

TEACHING EXPERIENCES

KAIST Global Institute for Talented Education, *Tutor* Feb 2018 - Nov 2018

- Taught science classes for talented middle school students.

KAIST SW STEAM Class, *Tutor* Feb 2017 - Dec 2017

- Taught STEAM coding classes for talented middle school students.

Korean Massive Open Online Courses (K-MOOC), *Teaching Assistant* Nov 2015 - Mar 2016

- Prepared quizzes and managed an undergraduate-level open online course. Sep 2017 - Nov 2017

Samsung Dream Class, *Mentor* Aug 2015 - Feb 2016

- Taught math classes for underprivileged middle school students.

College Tutoring Program, *Tutor* 2014 - 2018

- Tutored programming classes for freshman students at KAIST. (6 semesters)