PARK, YOUNG-JIN

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1. RESEARCH INTERESTS

- Machine learning and its application to real-world phenomena
- Representation learning for structured data
- Probabilistic latent variable modeling

2. EDUCATION

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

B.S. in Aerospace Engineering & Minor in Mathematical Sciences (GPA: 4.03/4.30) Feb. 2017
- KAIST Presidential Fellowship (10 selected among entire class of 2013 matriculation)
- Departmental Exemplary Academic Achievement Award

KOREA SCIENCE ACADEMY (KSA) **Busan, South Korea**
Academic Excellence Award (GPA: 4.00/4.30) Feb. 2013

3. PROFESSIONAL EXPERIENCE

NAVER CLOVA & AI LAB **Seongnam, South Korea**
AI Research Engineer Feb. 2019 – Present
- Developing a retail demand forecasting system identifying relationships within multivariate time series.
- Developed a large-scale recommender system using non-stationary graph representation learning.

KISWE **New Providence, NJ, USA**
Intern Jun. 2016 – Aug. 2016
- Conducting prototype design and implementation of interactive ads, and user testing for the mobile app.

4. PUBLICATIONS

*authors contributed equally; IF: impact factor

Dynamical Systems

- 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," *IEEE International Conference on Robotics and Automation (ICRA)*, 2021.

- **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] ***[Finalists of Intelligent Systems Student Paper Competition, AIAA Scitech 2019]***
- 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 (accepted)*, 2021. [IF: 3.314]
- S. Jung*, K.M. Kim*, H. Kwak*, and **Y.J. Park***, "A Worrying Analysis of Probabilistic Time-series Models for Sales Forecasting," *Neural Information Processing Systems (NeurIPS) Workshop: I Can't Believe It's Not Better*, 2020. ***[Best Poster Awards]***
- 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," *Neural Information Processing Systems (NeurIPS)*, 2018.

Graph Representation Learning

- 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," *ACM Recommender Systems (RecSys) Late-Breaking Results*, 2021.
- I.J. Kwon, K. Shin, J. Jeong, K.M. Kim, B.T. Zhang, and **Y.J. Park**, "AdamDGN: Adaptive Memory using Dynamic Graph Networks for Staleness Problem in Recommender System," *Knowledge Discovery and Data mining (KDD) Workshop: Online and Adaptative Recommender Systems*, 2021. ***[Spotlight]***
- **Y.J. Park**, K. Shin, and K.M. Kim, "Hop Sampling: A Simple Regularized Graph Learning for Non-Stationary Environments," *Knowledge Discovery and Data mining (KDD) Workshop: Mining and Learning with Graphs,* 2020.
- K. Shin, **Y.J. Park**, and K.M. Kim, "Multi-Manifold Learning for Large-scale Targeted Advertising System," *Knowledge Discovery and Data mining (KDD) Workshop: AdKDD,* 2020.
- J. Jeong, J.M. Yun, H. Keam, **Y.J. Park**, Z. Park, and J. Cho, "div2vec: Diversity-Emphasized Node Embedding," *ACM Recommender Systems (RecSys) Workshop: Impact of Recommender Systems,* 2020.
- 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," *ACM Recommender Systems (RecSys) Late-Breaking Results,* 2019.

Probabilistic Latent Variable Models

- **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].
- **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]
- **Y.J. Park**, P.M. Tagade, and H.L. Choi, "Deep Matrix-variate Gaussian Processes," *Uncertainty in Artificial Intelligence (UAI) Workshop: Uncertainty in Deep Learning*, 2018.
- **Y.J. Park**, S.H. Moon, and H.L. Choi, "High-Resolution Reconstruction for NoData Gaps in Narrow Angle Camera Digital Terrain Models Using Gaussian Process-Latent Variable Model," *Lunar and planetary science conference (LPSC)*, 2018.

Others

- K. Shin, H. Kwak, K.M. Kim, M. Kim, **Y.J. Park**, J. Jeong, and, S. Jung, "One4all User Representation for Recommender Systems in E-commerce," arXiv:2106.00573, 2021.
- 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]
- **Y.J. Park**, W.C. Lee, S.S. Park, H.L. Choi, E.H. Kim, J.J. Won, "Resource Management for Active Track/TWS Interleaving in Airborne AESA Radars," *Korea Institute of Military Science and Technology (KIMST) Annual Conference*, 2018.
- **Y.J. Park**, S.S. Park, W.C. Lee, H.L. Choi, E.H. Kim, J.J. Won, "Fuzzy Logic Approach for Target Prioritization in Airborne AESA Radars," *Korean Society for Aeronautical and Space Sciences (KSAS) Annual Conference*, 2018.
- D.W. Kim, **Y.J. Park**, H.L. Choi, S.H. Ryu, Y.J. Hong, "Adaptive Radar Resource Managing Method Considering Hostile Airborne Targets in Air-to-Air and Air-to-Surface Interleaving Mode," *Korean Society for Aeronautical and Space Sciences (KSAS) Annual Conference*, 2018.
- **Y.J. Park**, S.S. Park, W.C. Lee, H.L. Choi, E.H. Kim, J.E. Roh, "Adaptive Radar Task Scheduling Algorithm Considering the Target Priority," *Korean Society for Aeronautical and Space Sciences (KSAS) Annual Conference*, 2017.
- W.C. Lee, S.S. Park, **Y.J. Park**, H.L. Choi, E.H. Kim, J.E. Roh, "Track Management for TWS mode of AESA Radar," *Korean Society for Aeronautical and Space Sciences (KSAS) Annual Conference*, 2017.

5. ACADEMIC HONORS

Awards

- Best Poster Awards - ICBINB@NeurIPS 2020 Workshop — Dec. 2020
- M.S. Outstanding Paper Award - Dept. of Aerospace Engineering, KAIST — Feb. 2019
- KSIAM-Mathworks Problem Challenge (3rd Place) — Nov. 2017
- Exemplary Academic Achievement Award - Dept. of Aerospace Engineering, KAIST — Sep. 2017
- Graduation Honors (Summa Cum Laude) - KAIST — Feb. 2017
- Undergraduate Student Paper Competition (3rd Place) - KSAS — Apr. 2016
- Academic Honors Student - Dept. of Aerospace Engineering, KAIST — Mar. 2015

Scholarships

- Young-Han Kim Global Leader Scholarship — 2018
- GE Foundation Scholar-Leaders Program — 2014 – 2016
- Boeing Scholarship — 2014 – 2016
- Samsung Electronics JFL Scholarship — 2013 – 2016
- KAIST Presidential Fellowship (10 selected among entire class of 2013 matriculation) — 2013 – 2016