SUNGWON KIM

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EDUCATION

Feb 2022 – Present Korea Advanced Institute of Science and Technology (KAIST) DAEJEON, KOREA

M.S. in Graduate School of Data Science, at <u>Data Science - Artificial Intelligence Lab (DSAIL)</u>

Advisor: Prof. Chanyoung Park

Mar 2014 – Feb 2022 Korea University SEOUL, KOREA

B.S. in Architecture & Civil Engineering GPA: 3.90 out of 4.5

RESEARCH INTEREST

Data Mining for Graph Neural Networks Data-Efficient Deep Learning

WORK EXPERIENCE

Jul 2019 – Feb 2022 AI SOFTWARE OF KOREA (한국에이아이소프트)

SEOUL, KOREA

Co-CEO, Co-Founder

PUBLICATIONS

Conferences

[C5] DSLR: Diversity Enhancement and Structure Learning for Rehearsal-based Graph Continual Learning Seungyoon Choi*, Wonjoong Kim*, Sungwon Kim, Yeonjun In, Sein Kim, Chanyoung Park WWW 2024 – The Web Conference

[C4] Interpretable Prototype-based Graph Information Bottleneck

Sangwoo Seo, **Sungwon Kim**, Chanyoung Park **NeurIPS 2023** - In Conference on Neural Information Processing Systems (NeurIPS)

(Gold Prize at the 2023 Samsung Humantech Paper Award)

[C3] Density of States Prediction of Crystalline Materials via Prompt-guided Multi-Modal Transformer Namkyeong Lee*, Heewoong Noh*, Sungwon Kim, Dongmin Hyun, Gyoung S. Na, Chanyoung Park NeurIPS 2023 - In Conference on Neural Information Processing Systems (NeurIPS)

[C2] Task-Equivariant Graph Few-shot Learning Sungwon Kim, Junseok Lee, Namkyeong Lee, Wonjoong Kim, Seungyoon Choi, Chanyoung Park KDD 2023 - ACM SIGKDD Conference on Knowledge Discovery and Data Mining

[C1] Conditional Graph Information Bottleneck for Molecular Relational Learning Namkyeong Lee, Dongmin Hyun, Gyoung S Na, Sungwon Kim, Junseok Lee, Chanyoung Park ICML 2023 - International Conference on Machine Learning

Journals

[J1] Deep Single-cell RNA-seq Data Clustering with Graph Prototypical Contrastive Learning Junseok Lee, Sungwon Kim, Dongmin Hyun, Namkyeong Lee, Yejin Kim, Chanyoung Park Bioinformatics 2023 (SCI)

Workshops

[W2] Deep Single-cell RNA-seq Data Clustering with Graph Prototypical Contrastive Learning
Junseok Lee, Sungwon Kim, Dongmin Hyun, Namkyeong Lee, Yejin Kim, Chanyoung Park
ICML 2023 Workshop on Computational Biology (WCB 2023)

[W1] Predicting Density of States via Multi-modal Transformer Namkyeong Lee, Heewoong Noh, Sungwon Kim, Dongmin Hyun, Gyoung S Na, Chanyoung Park ICLR 2023 Workshop on Machine Learning for Materials (ML4Materials) - International Conference on Learning Representations

PROJECTS

Jan 2021 – Feb 2022 Translating Korean Legal Case's Sentences into Common Terms

1st award project at Seoul R&D research center (2021)

Jun 2020 – Dec 2020 Sentence Similarity Model for Korean Legal Sentences

1st award project at Seoul R&D research center (2020)

Oct 2017 – Dec 2017 Analysis of Color Cognitive of Older Persons or Children with Disabilities by Big Data

Development of Color Cognitive Test Kit and Multivariate Regression Analysis

HONORS AND AWARDS

Dec 2020 Seoul Renovation Challenge

Seoul Business Agency

Awarded for the best team out of 444 participants

Systems and methods for providing quantified AI answering services for legal questions

Top award, Crew of Korea University Rowing Team

INTELLECTUAL PROPERTY RIGHTS

Oct 2019 Big data and AI-based Color Recognition Measurement Platform and Method

Patent Number: 10-2351169-00-00

Registered Patent

TEACHING EXPERIENCE

Sep. 2023 AI Specialist Course, Samsung Electronics

Teaching Assistant

Spring 2023 DS503: Machine Learning for Data Science, KAIST

Teaching Assistant

Fall 2022 AI Business Transformation Program, KAIST

Researcher

Spring 2022 IE343: Statistical Machine Learning, KAIST

Teaching Assistant

TALKS AND SEMINARS

Winter 2023 Task-Equivariant Graph Few-shot Learning

Top Conference Session of Korea Software Congress (KSC)

ACTIVITIES

Mar 2015 – Present Apr 2019 – Feb 2020 **Korea University Rowing Team Working Holidays in Australia**

Swimming Instructor, United Swimming Club

REFERENCES

Prof. Chanyoung Park

Assistant professor, KAIST [Email] cy.park@kaist.ac.kr