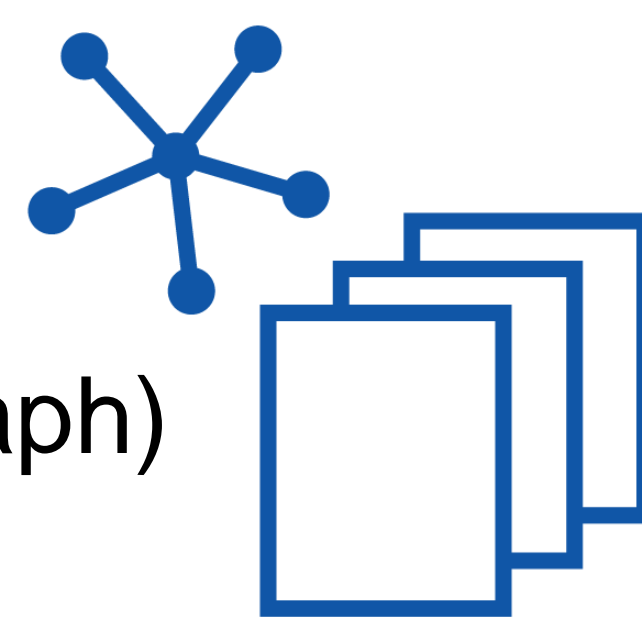


Welcome to Data Mining Laboratory in the Department of Computer Science and Engineering at Seoul National University. Our research interests lie in data mining and machine learning to find models, algorithms, and systems for data analysis. Specifically, we focus on the following research topics: graphs/tensors, recommender/QA systems, deep learning & machine learning, and financial AI.

Graphs and Tensors

- **Goal**
 - Graph and tensor analysis and applications
- **Research Topics**
 - Graph mining (e.g., link prediction, ranking, and knowledge graph)
 - Graph neural network (e.g., node classification and representation learning)
 - Scalable tensor analysis and graph analysis



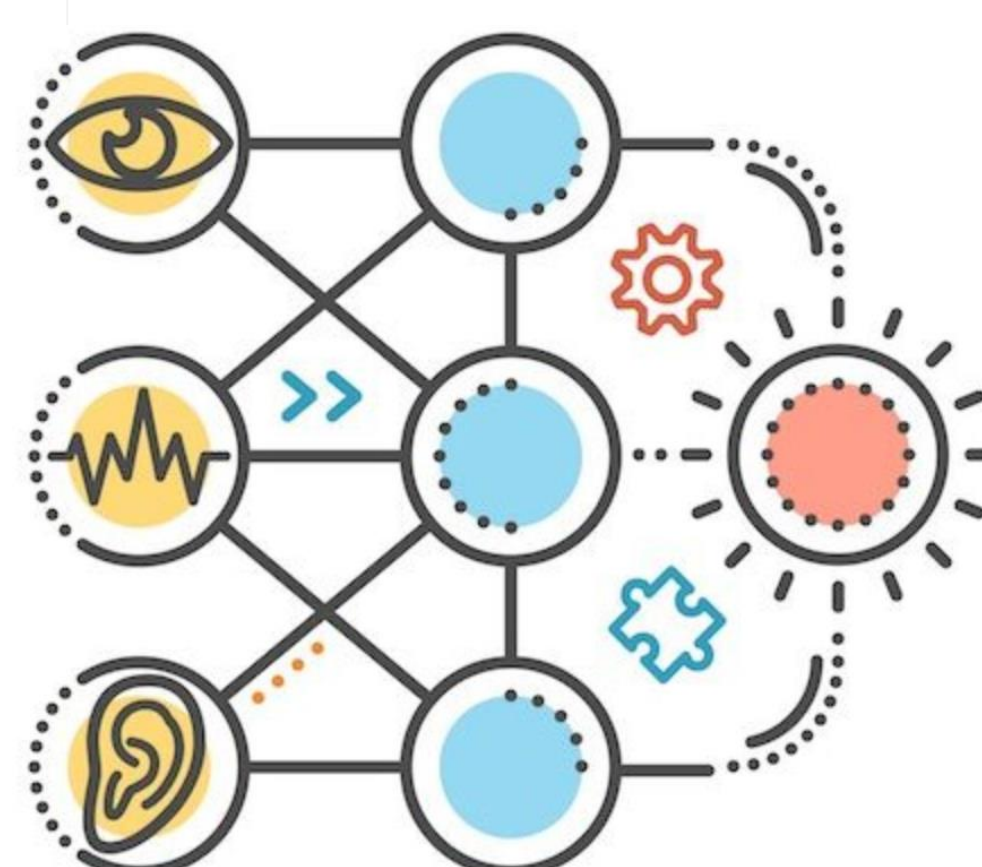
Recommender / Question-Answering Systems

- **Goal**
 - Recommending items and answering questions appropriately
- **Research Topics**
 - Diversified recommendation
 - Personalized QA / AI agent with LLM
 - Trustworthy LLM



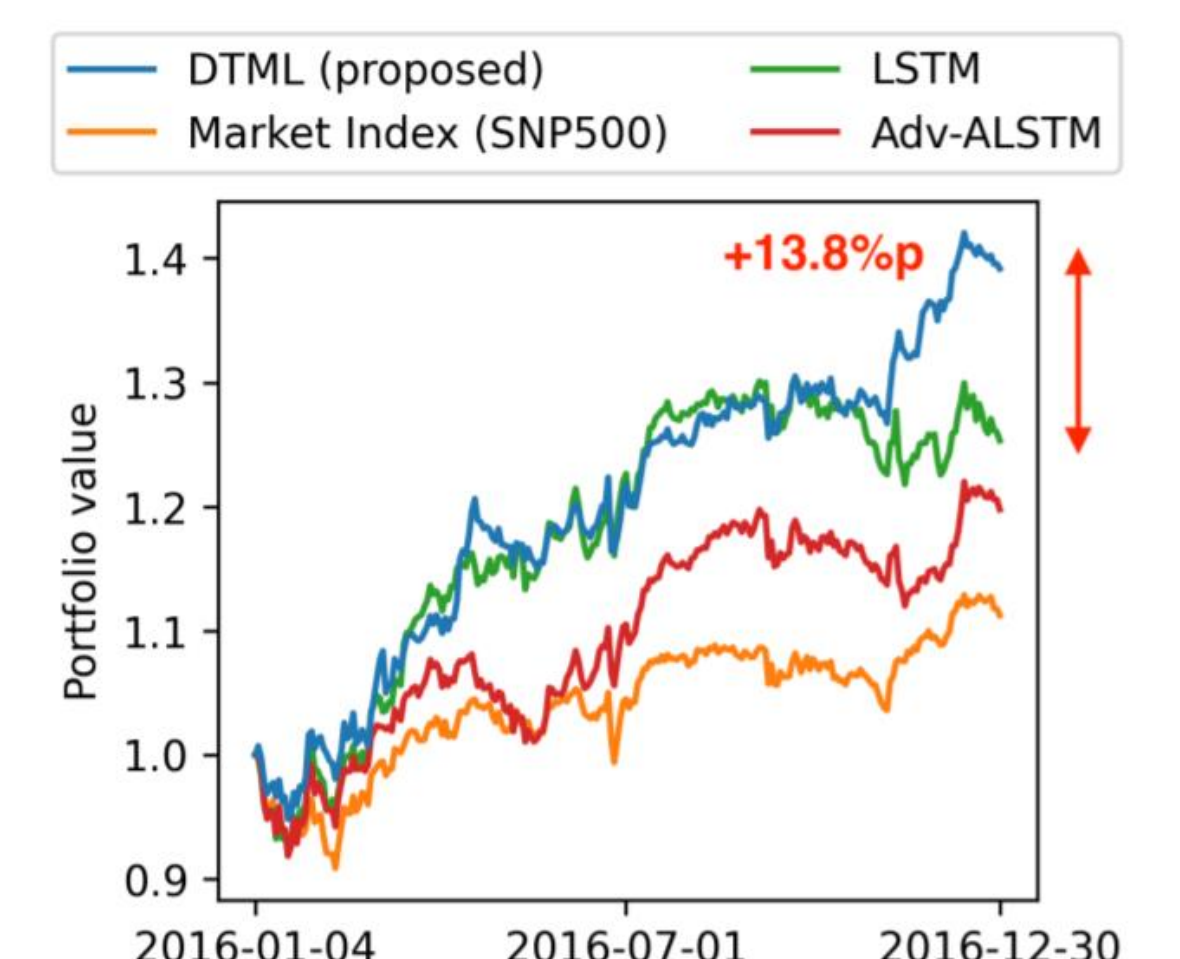
Deep Learning & Machine Learning

- **Goal**
 - Learn and improve from big data
- **Research Topics**
 - Model compression
 - Lightweight LLM and on-device AI
 - Reinforcement learning for real-world problems
 - Anomaly detection



Financial AI

- **Goal**
 - Learn and improve from financial data
- **Research Topics**
 - Time series prediction
 - Stock price prediction
 - Portfolio management with RL
 - Optimal trading strategy



연구 실적

- **데이터 마이닝, 기계 학습 분야 세계 선도**
- 국제 최우수 학회 및 SCI 저널에 155편 논문 출판 (KDD, WWW, ICDM, ICDE, NeurIPS, ICLR 등)
- 국내/해외 특허 86편
- **Best Paper Awards**
 - 2022, ICDE Best Research Paper Award
 - 2021, KDD Best Research Paper Award (대한민국 최초)
 - 2020, PAKDD Best Student Paper Award
 - 2018, ICDM 10-Year Best Paper Award (대한민국 최초)

수상 실적

- **우수한 연구 실적에 기반한 수많은 수상 실적**
- 최우수 박사/석사 학위 논문상 (SNU CSE)
- BK 스타 연구자 상
- BK21 Plus 공과대학 우수 연구상
- Microsoft 주최 뉴스 추천 세계 대회 수상
- 장학금: 울촌 AI Star Fellowship, Naver Ph.D. Fellowship, Qualcomm Innovation Fellowship, Google Ph.D. Fellowship
- 삼성 휴먼테크 논문 대상 (7년 연속 수상)

연구실 구성원 진로

- 졸업생 진로: 교수 (KAIST 등 국내 대학 교수 3명), 스타트업 창업/입사, 대기업, 연구소 등

연구실 Contact

- Professor: U Kang (ukang@snu.ac.kr)
- Lab manager: Junghun Kim (bandalg97@snu.ac.kr)