

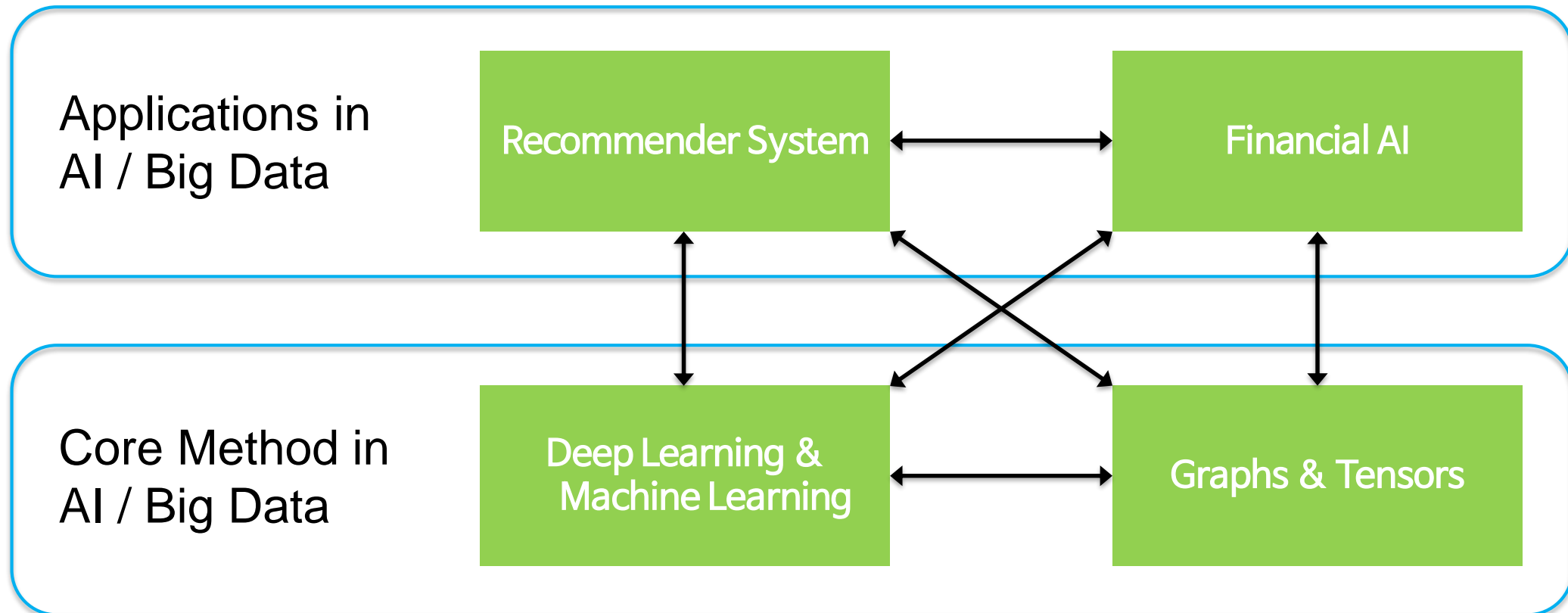
Data Mining Laboratory

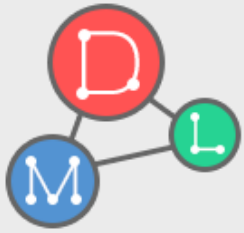
<http://datalab.snu.ac.kr>



서울대학교
SEOUL NATIONAL UNIVERSITY

Methods and Applications for AI and Big Data Mining





Data Mining Laboratory

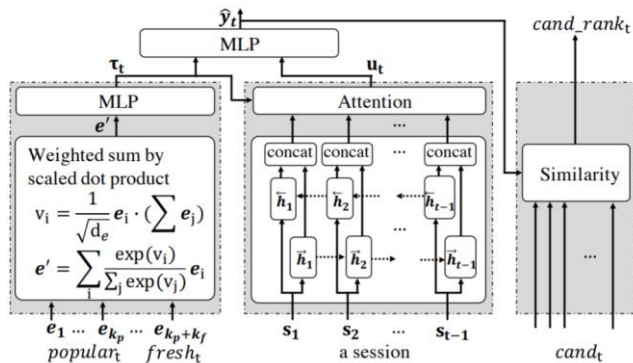
<http://datalab.snu.ac.kr>



서울대학교
SEOUL NATIONAL UNIVERSITY

Recommender System

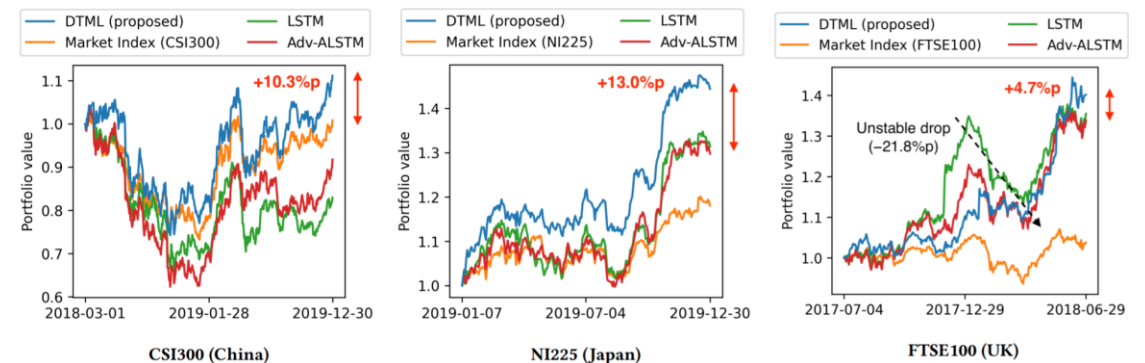
- Recommendation in multi-modality
 - Multi-modal data, including ratings, social networks, texts, and images are available
- Sequence recommendation
 - Video and news recommendation
- Active recommendation



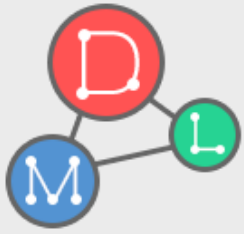
Accurate News Recommendation Coalescing Personal and Global Temporal Preferences (PAKDD'20 **Best Student Paper**)

Financial AI

- Time series prediction
- Stock price prediction
- Portfolio management and trading strategy



Accurate Multivariate Stock Movement Prediction via Data-Axis Transformer with Multi-Level Contexts (KDD'21)



Data Mining Laboratory

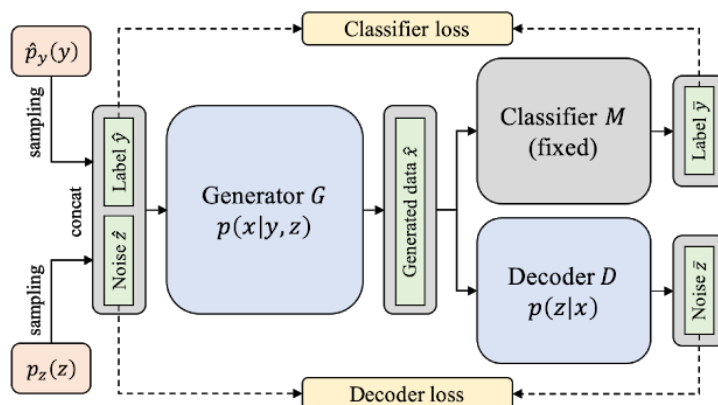
http://datalab.snu.ac.kr



서울대학교
SEOUL NATIONAL UNIVERSITY

Deep Learning & Machine Learning

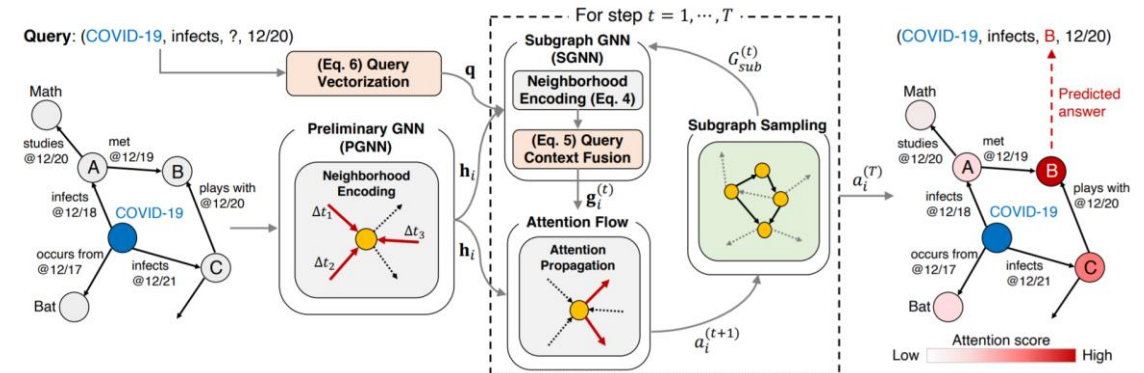
- Fast and adaptive inference
 - Model compression and online learning
- Fast and adaptive learning
 - AutoML and Transfer Learning
- Novel application: e.g., anomaly detection



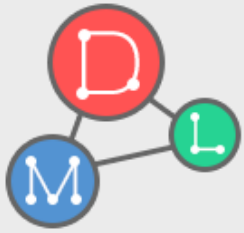
Knowledge Extraction with No Observable Data (NeurIPS'19)

Graphs and Tensors

- Graph mining
 - Ranking, link prediction, relation inference, knowledge graph analysis, and graph summary
- Graph neural network
 - Node classification and representation learning
- Scalable tensor and graph analysis



Learning to Walk across Time for Interpretable Temporal Knowledge Graph Completion (KDD'21)



Data Mining Laboratory

<http://datalab.snu.ac.kr>



서울대학교
SEOUL NATIONAL UNIVERSITY

최근 연구 실적

- 2016-현재, 국제 최우수/우수 학회 (KDD, NeurIPS, 등), SCI(E) 저널에 60편 이상 발표
 - 데이터 마이닝, 인공지능, 빅데이터 최우수 학회에 다수 논문 발표
 - KDD, NeurIPS, WWW, ICDM, ICDE, IJCAI 등
- Best Paper Awards
 - 2021, KDD Best Research Paper Award
 - 2020, PAKDD Best Student Paper Award
 - 2018, ICDM 10-year Best Paper Award

수상 실적

- 2020-2021, 율촌 AI Star Fellowship
- 2020, Qualcomm Innovation Fellowship
- 2020, MS 주최 뉴스 추천 세계 대회 수상
- 2019, Google Ph.D. Fellowship in Machine Learning
- 2013-2019, 삼성 휴먼테크 논문 대상 (7년 연속 수상)
- 2018-2021, 최우수 석사/학사 학위 논문상 (SNU CSE)
- 2018, 2021, BK21 Plus 공과대학 우수 연구상

연구실 Contact

- Professor *U Kang* (ukang@snu.ac.kr)
- Lab Manager *Jun-Gi Jang* (elnino9158@gmail.com)