Sejoon Oh

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RESEARCH STATEMENT

My research aims to build the next generation of AI systems that are **economically viable, deeply personalized, and robustly safe**. My work has focused on bridging AI's potential with practical application. Key contributions include productizing various **metric-winning AI models at Netflix** and creating a **universal safety guardrail** to defend Multimodal LLMs against diverse threats at Georgia Tech. My future agenda focuses on creating **proactive AI models** that anticipate user needs, using generative models to co-create **hyper-personalized content**, and developing **predictive safety systems** for emergent AI risks.

EDUCATION

Georgia Institute of Technology, Atlanta, GA
- Ph.D. in Computer Science; Advisor: Prof. Srijan Kumar — Aug. 2019 – May 2024

Seoul National University, Seoul, Korea
- B.S. in Computer Science and Engineering; Advisor: Prof. U Kang — Mar. 2012 – Aug. 2018

WORK EXPERIENCE

AI Foundation Research Scientist, **Netflix** — June 2024 – Present
- (1) Core researcher of **personalized and multimodal LLMs**; developed a multimodal LLM that consumes various user engagements for personalization with production-level performance.
- (2) Lead researcher of integrating **semantic IDs** into LLMs; it enables diverse recommendations (e.g., videos, games, lives, podcasts, etc.) on Netflix that couldn't be achieved by existing ML models.
- (3) Lead researcher of developing **a special finetuning mechanism of Netflix foundation model**. It has shown significant metric winning and revenue boosting on online test across millions of users.
- (4) Lead researcher of developing an **adaptive (real-time) foundation model: FM-Adaptive**. This model has shown remarkable cost savings and enhanced adaptiveness to user signals in production.
- (5) Lead inventor of **a new foundation model (FM-Intent)** that can predicts user intent on Netflix. This model has been productized after significant metric lift on online test across millions of users.

RECENT PUBLICATIONS

[C1] **Sejoon Oh**, Moumita Bhattacharya, Yesu Feng, and Sudarshan Lamkhede, "FM-Intent: Predicting User Session Intent with Hierarchical Multi-Task Learning", **Netflix Tech Blog**, 2025.

[C2] **Sejoon Oh**, Yiqiao Jin, Megha Sharma, Ethan Kim, Eric Ma, Gaurav Verma, and Srijan Kumar "UniGuard: Towards Universal Safety Guardrails for Jailbreak Attacks on Multimodal Large Language Models", Deployable AI Workshop at ***AAAI***, 2025.

[C3] **Sejoon Oh**, Gaurav Verma, and Srijan Kumar, "Adversarial Text Rewriting for Text-aware Recommender Systems", ACM International Conference on Information and Knowledge Management ***(CIKM)***, 2024.

[C4] Gaurav Verma, Minje Choi, Kartik Sharma, Jamelle Watson-Daniels, **Sejoon Oh**, Srijan Kumar, "Cross-Modal Projection in Multimodal LLMs Doesn't Really Project Visual Attributes to Textual Space", Annual Meeting of the Association for Computational Linguistics ***(ACL)***, 2024.

[C5] **Sejoon Oh**, Julian McAuley, Berk Ustun, and Srijan Kumar, "FINEST: Stabilizing Recommendations by Rank-Preserving Fine-Tuning", ACM Transactions on Knowledge Discovery from Data **(TKDD)**, 2024.

AWARDS & SCHOLARSHIPS

- **EB-1B Green Card Holder: Outstanding Professors and Researchers** — Jan. 25
- **Kwanjeong Educational Foundation Ph.D. Fellowship** — Aug. 2019 – May 2024
  One of the most prestigious fellowships in Korea, which supports up to $\$30K$ USD per year
- **2021 Machine Learning at Georgia Tech (ML@GT) Fellow** — May 2021
- **Twitch Research Fellowship Finalist** — Jan. 2021
- **Humantech Paper Award (Gold Prize, 1st in Computer Science)** — Feb. 2018
  Awarded by Samsung, Korea
- **Silver Medalist of Asia-Pacific Informatics Olympiad** — May 2011
  Awarded at the 5th Asia-Pacific Informatics Olympiad (APIO), Iran