

# Taehyun (Tae) Yang

Prospective Ph.D. Student, Department of Computer Science, University of Maryland

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Most of the names and institutions are linked to their relevant web pages for quick reference.

## Education

2025 -	<b>Ph.D. in Computer Science</b> Incoming student advised by Dr. Fumeng Yang	University of Maryland
2021 - 2025	<b>B.S. in Computer Science and Engineering</b> <b>B.S. in Business Administration</b> Advised by Dr. Sangmin Lee	Seoul National University
2017 - 2018	<b>B.S. in Electrical Engineering</b> Withdrawn	University of Illinois at Urbana-Champaign

## Research Interests

My research lies at the intersection of Human-Computer Interaction and Social Computing. Through my research, I aim to understand how foundational models shape decision-making, communication, and trust, and how they can be designed to better serve the public. To this end, I develop AI systems that improve human-AI interactions by making model-driven decisions more transparent, adaptive, and socially responsible.

## Publications

### Peer-Reviewed Full Papers & Workshops

2024	P3	<b>Unveiling High-dimensional Backstage: A Survey for Reliable Visual Analytics with Dimensionality Reduction</b> Hyeon Jeon, Hyunwook Lee, Yun-Hsin Kuo, <b>Taehyun Yang</b> , Daniel Archambault, Sungahn Ko, Takanori Fujiwara, Kwan-Liu Ma, and Jinwook Seo ACM Conference on Human Factors in Computing Systems
2024	W1	<b>Using LLMs to Investigate Correlations of Conversational Follow-up Queries with User Satisfaction</b> Hyunwoo Kim, Yoonseo Choi, <b>Taehyun Yang</b> , Honggu Lee, Chaneon Park, Yongju Lee, Jinyoung Kim, and Juho Kim Workshop on Large Language Models (LLMs) for Evaluation in Information Retrieval, ACM SIGIR Conference on Research and Development in Information Retrieval
2024	P2	<b>Offsetting Perceptual Bias in Visual Clustering: The Role of Point Size Adjustment in Variable Display Sizes</b> <b>Taehyun Yang</b> , Hyeon Jeon, and Jinwook Seo IEEE Pacific Visualization Conference (Work in Progress)

2024	P1	<b>UMATO: Two-phase Manifold Approximation for Accurate, Scalable, and Stable Dimensionality Reduction</b> Hyeon Jeon, Hyung-Kwon Ko, Soohyun Lee, Jake Hyun, <b>Taehyun Yang</b> , Gyehun Go, Jaemin Jo, and Jinwook Seo IEEE Transactions on Visualization and Computer Graphics (Under minor revision)
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## Experiences

### Research Experiences

2023 - 2025	<b>Undergraduate Intern</b> , SNU HCIL, Seoul National University Advisor: Dr. Jinwook Seo Developed ML visualization algorithms and visual perception models [P1, P2, P4]
2024	<b>Undergraduate Intern</b> , KIXLAB, KAIST Advisor: Dr. Juho Kim Investigated user behavior in multi-turn conversational search engines, collaborating with NAVER's Cue [W1]
2023	<b>Visiting Researcher</b> , Tech4Good Lab, University of California, Santa Cruz Advisor: Dr. David Lee Explored scaffolding and sub-goal learning techniques for programming education

### Industry Experiences

2024	<b>Project Intern</b> , SoftlyAI Led a team to develop a LLM system tailored for industry experts and healthcare professionals.
2023 - 2024	<b>Product Research &amp; Development Intern</b> , Samsung Research Developed hand-tracking interactions for Samsung's Vision AR prototypes.
2021 - 2023	<b>Co-Founder</b> , Team Chattie Led a startup team to develop a Korean/English language learning platform (300 users).
2020 - 2021	<b>Research Consultant</b> , Korea Insight Institute Consulted on market research projects, specializing in Fintech industries.
2019 - 2020	<b>Military Service</b> , Ministry of Gender Equality and Family Developed applications focused on enhancing women's safety.
2019	<b>Intern Consultant</b> , Tech Suda Served as a trilingual consultant (Chinese, Korean, English) at CES 2019

### Teaching Experiences

2024	<b>Mentor</b> , LG AI Youth Camp
2024	<b>Undergraduate Teaching Assistant</b> , M1522 Computer Programming 🏆 Best TA Award
2024	<b>Undergraduate Teaching Assistant</b> , 4190.407 Algorithm
2023	<b>Undergraduate Teaching Assistant</b> , 035.001 Digital Computer Concept and Practice
2023	<b>Hackathon Judge</b> , International Collegiate Programming Contest (ICPC) Regional
2022	<b>Coding/Physics Tutor</b> , Ranked 5.4k/550k (1%) Top STEM teacher from Kim Study

# Invited Talks



- 2024 **Enhancing Conversational Search Through Real World User Interaction Analysis at Scale**  
Liberal Arts and Sciences Academic Festival, Feb. 2024
- 2023 **Exploring Visual Perception and Cluster Granularity**  
K-VIS, Korean Institute of Information Scientists and Engineers, Dec. 2023

# Grants and Scholarships

## Research Grants

- 2024 **Learning Sciences Research Grant**, Learning Sciences Institute  
Topic: Creating Easily Digestible Educational Group Chats with LLM-Driven Question and Answer Connections  
Granted 2,000,000 KRW ( $\simeq$  1,500 USD)
- 2024 **Student Individual Research Program**, Faculty of Liberal Education  
Topic: Can LLM Models Simulate Human Subjectivity?  
Granted 5,000,000 KRW ( $\simeq$  3,700 USD)
- 2023 **SNU Undergraduate Research Program**, Computer Science and Engineering  
Topic: Exploring Size in Visual Clustering Perception  
Granted 1,000,000 KRW ( $\simeq$  750 USD)

## Scholarships and Awards

- 2025 **Dean's Fellowship**, University of Maryland  
Granted 5,000 USD for graduate studies
- 2025 **Grand Prize**, Deputy Prime Minister & Minister of Education   
Awarded to top 1/120 team for proposing best solution to semiconductor overloading issues  
Granted 5,000,000 KRW ( $\simeq$  3,700 USD)
- 2024 **LG AI Mentorship Scholarship**, Seoul National University & LG Discovery Lab  
Granted 2,000,000 KRW ( $\simeq$  1,500 USD)
- 2024 **SNU Semiconductor Excellence Scholarship**, Institute for Semiconductor Specialization  
Awarded to 91/455 students (20%) for academic and extracurricular excellence  
Granted 11,300,000 KRW ( $\simeq$  8,300 USD)
- 2023 **SNU-SEC Research Program Fellowship**, Samsung Research (Declined)  
Recognized for research excellence  
Granted 30,000,000 KRW ( $\simeq$  22,000 USD)
- 2022 **Visiting Researcher Travel Grant**, SNU Office of International Affairs  
Awarded to 30/150 students (20%) for visiting research support  
Granted 5,000,000 KRW ( $\simeq$  3,700 USD)
- 2022 **Golden award in K-Startup Competition**, Ministry of Culture, Sports and Tourism   
Awarded to top 1/50 team (2%) for entrepreneurial excellence  
Granted 10,000,000 KRW ( $\simeq$  7,500 USD)