

Minsuk Chang

Ph.D. Student

Georgia Institute of Technology · School of Interactive Computing

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About

My primary research interests lie in empirical studies of Information Visualization. I focus on analyzing visual attention during chart interpretation, particularly in contexts involving comprehension and critical thinking. I am also interested in applying these insights to AI models, leading to projects on saliency prediction and benchmarking large language models (LLMs).

Education

Georgia Institute of Technology

Ph.D. Student of Computer Science

- Advisor: Cindy Xiong Bearfield

Atlanta, GA

2024.08 -

Seoul National University

Bachelor of Science

- Major: Computer Science and Engineering

Seoul, Korea

2018.03 - 2024.02

Publications

Published

- Grid Labeling: Crowdsourcing Task-Specific Importance from Visualizations
Minsuk Chang, Yao Wang, Huichen Will Wang, Andreas Bulling, Cindy Xiong Bearfield.
27th Eurographics Conference on Visualization, EuroVis 2025 - Short Papers
- Assessing Graphical Perception of Image Embedding Models using Channel Effectiveness.
Soohyun Lee, **Minsuk Chang**, Seokhyeon Park, and Jinwook Seo.
2024 IEEE Visualization and Visual Analytics (IEEE VIS)
- CLeVer: Continual Learning Visualizer for Detecting Task Transition Failure.
Minsuk Chang, Donghun Kim, Hyeon Jeon, Seokweon Jung, and Jinwook Seo.
2024 IEEE 17th Pacific Visualization Conference (PacificVis)
- Tensor Space Model-based Textual Data Augmentation for Text Classification.
Minsuk Chang, Han-Joon Kim.
2023 IEEE International Conference on Big Data (BigData)

In-Submission

- How Visualization Literacy Shapes Viewers' Visual Attention
1st Author
2025 IEEE Visualization and Visual Analytics (IEEE VIS)

Research Experience

Tableau Research

Mentor: Srishti Palani

- Project: Measuring critical thinking ability of LLMs

May. 2025 -

Seoul National University - Human-Computer Interaction Lab

Advisor: Jinwook Seo

- Project: Human-in-the-loop System for Human Posture Extraction in Industrial Videos
- Project: Interactive Toolkit for Detecting and Mitigating Bias in Image Datasets.

July. 2023 - July. 2024

University of Seoul - Data Mining Lab

Advisor: Han-joon Kim

Sept. 2022 - Feb. 2024

- Paper: Tensor Space Model-based Textual Data Augmentation for Text Classification

Seoul National University - Human-Centered System Lab

Advisor: Youngki Lee

April. 2022 - June. 2022

- Project: Smarthome IoT Sensor Anomaly Detection

Industrial Experience

Naver Appolo Dev.

Pangyo, Korea

Undergraduate Internship

Jan. 2023 - Feb. 2023

- Interned at Naver Corporation and researched how to extract trending topics from user-generated content. Learned non-ML techniques for analyzing time-series data. Used different clustering methods and seasonal algorithms to identify topics linked to specific dates.

PromptTechnology

Seoul, Korea

Web Development Internship

July. 2022 - Aug. 2022

- Worked on modules for the Public Data Portal run by the Ministry of Public Administration and Security. Created an improved cache system to handle high traffic, up to 100 API calls per second. Gained experience with MSA architecture and learned multiple languages and protocols like golang, typescript, and grpc.

Airforce, Republic of Korea

Korea

System Management Assistant

Sept. 2020 - March. 2022

- Served in the military as a system management assistant in the Korea Air Force. Managed various database servers and tactical systems. Learned about potential system failures and how to address them effectively.

PromptTechnology

Seoul, Korea

Web Development Internship

July. 2020 - Aug. 2020

- Interned at PromptTechnology and served as a project manager. Developed a survey platform web service using Node.js and Express.js. Gained practical skills in building commercial services. Collaborated with the Graduate School of Public Health at Seoul National University to develop a mental care application for COVID-19 self-quarantine.

Competitions & Projects

Reinforcement Learning for Game Yahtzee

Personal Project

2021 - 2022

- Inspired by Reinforcement Learning, developed a Deep Q Network-based AI which plays the board game Yahtzee. Adjusted the model and hyper-parameters to surpass human average scores of 200. Codes and reports are available on [GitHub](#).

AI Hackathon Competition

The 3rd AI x Bookathon by SKKU&MindsLab

Nov. 2021

- Trained a GPT-2 model to write essays on the theme "Together." Used data collected from websites and preprocessed it. Project details and results are available on [GitHub](#).

CloudNews

2021 Military Open Data Competition by ROKAF

May 2021 - July 2022

- CloudNews is a web service designed to gather all military news and articles scattered around. Used OCR to extract newspaper's text data and visualized its keywords as a cloud map. Participated during military service (2020.06 - 2022.04)

Technical Skills

PL **Python, C, Cuda, Javascript**, Advanced
Web **NodeJS, Django, ReactJS, D3**, Advanced