Kwon Ko

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About

Kwon Ko is a Computer Science Ph.D. student at Stanford University. He wants to understand how brain works. By constructing and analyzing the human brain connectome, he seeks to uncover the principles of cognition and intelligence. He applies insights from neuroscience to develop artificial general intelligence that can efficiently reason, plan, and act with greater sophistication. Ultimately, he envisions building an "Agentic Society" where AI agents interact with humans safely and ethically.

Education

2024 – present **Stanford University**, Stanford, CA
Ph.D. in Computer Science

2019 – 2021 **Seoul National University**, Seoul, Korea
M.S. in Computer Science and Engineering (Advisor: Dr. Jinwook Seo)

2014 – 2019 **Hanyang University**, Seoul, Korea
B.S. in Mathematics

Publications

Conference Proceedings

c8 Kim, N. W., Ko, K., Myers, G., Bach, B. (2024).
ChatGPT in Data Visualization Education: A Student Perspective.
VL/HCC 2024. 12 pages. 33.3% acceptance rate (21/63).

c7 Ko, K., Jeon, H., Park, G., Kim, D. H., Kim, N. W., Kim, J., Seo, J. (2024).
Natural Language Dataset Generation Framework for Visualizations Powered by Large Language Models.
CHI 2024. 22 pages. 26.3% acceptance rate (1,060/4,028).

c6 Jeon, H., Cho, A., Jang, J., Lee, S., Hyun, J., Ko, K., Jo, J., Seo, J. (2023).
Zadu: A Python Library for Evaluating the Reliability of Dimensionality Reduction Embeddings.
VIS 2023. 5 pages. 33.7% acceptance rate (51/151).

c5 Ko, K., Park, G., Jeon, H., Jo, J., Kim, J., Seo, J. (2023).
Large-scale Text-to-Image Generation Models for Visual Artists' Creative Works.
IUI 2023. 15 pages. 24.1% acceptance rate (66/274).

c4 Ko, K.*, An, S.*, Park, G., Kim, S.K., Kim, D., Kim, B., Jo, J., Seo, J. (2022).
We-toon: A Communication Support System between Writers and Artists in Collaborative Webtoon Sketch Revision.
UIST 2022. 14 pages. 26.3% acceptance rate (98/372).

c3 Jeon, H.*, Ko, K.*, Lee, S., Jo, J., Seo, J. (2022).
Uniform Manifold Approximation with Two-phase Optimization.
VIS 2022. 5 pages. 31.7% acceptance rate (33/104).

c2 Jung, S., Choe, K., Park, S., Ko, K., Seo, J. (2021).
Mixed-Initiative Approach to Extract Data from Pictures of Medical Invoice.
PacificVis 2021. 5 pages. 43.3% acceptance rate (13/30).

c1 Ko, K., Jo, J., Seo, J. (2020).
Progressive Uniform Manifold Approximation and Projection.
EuroVis 2020. 5 pages. 45.7% acceptance rate (32/70).

Journal Articles

j1 Jeon, H., Ko, K., Jo, J., Kim, Y., Seo, J. (2021).
Measuring and Explaining the Inter-Cluster Reliability of Multidimensional Projections.
TVCG (VIS 2021). 12 pages. 24.9% acceptance rate (110/441).

Workshop Papers

w2 Ko, K., Jeon, H., Park, G., Kim, D. H., Kim, N. W., Kim, J., Seo, J. (2023).
A Vega-Lite Dataset and Natural Language Generation Pipeline with Large Language Models.
VIS 2023 NLVIZ Workshop: Exploring Research Opportunities for NL, Text, and Data Visualization.

w1 Ko, K., Son, K., Jin, H., Choi, Y., Chen, X. (2023).
Moderating Customer Inquiries and Responses to Alleviate Stress and Reduce Emotional Dissonance of Customer Service Representatives.
CHI 2023 Workshop on Generative AI and HCI.

Preprints & Publications in Progress

p1 Jeon, H., Aupetit, M., Lee, S., Ko, K., Kim, Y., Seo, J. (2022).
Distortion-Aware Brushing for Interactive Cluster Analysis in Multidimensional Projections.
Arxiv Preprint.

* denotes equal contributions.

Experience

05/2024 – 09/2024 **SkillWave, Inc.**, Remote
Research Engineer (w/ Dr. Juho Kim, Dr. Matt Beane) (Client: OpenAI, BP plc)

10/2023 – 07/2024 **DataMaze Lab (University of Michigan)**, Remote
Researcher (w/ Dr. Eytan Adar, Dr. Eric Gilbert)

06/2022 – 11/2022 **KIXLAB (KAIST)**, Daejeon, Korea
Researcher (w/ Dr. Juho Kim)

10/2021 – 06/2022 **Naver Webtoon Corp.**, Seongnam, Korea
AI Researcher, Webtoon AI

04/2021 – 09/2021 **Naver Webtoon Corp.**, Seongnam, Korea
AI Research Intern, Webtoon AI

03/2019 – 08/2019 **HCI Lab (Seoul National University)**, Seoul, Korea
Research Intern (w/ Dr. Jinwook Seo)

01/2019 – 02/2019 **LG Electronics Inc.**, Seoul, Korea
Research Intern, CTO Division

06/2018 – 08/2018 **Wesleyquest Inc.**, Seoul, Korea
Research Associate

Honors and Awards

2024 **Fulbright Scholarship** (Fellowship for Ph.D. studies), US & ROK Government
2023 **ACM Travel Grants** (Travel support for IUI '23, $980 USD), ACM SIGCHI
2022 **Gary Marsden Travel Awards** (Travel support for UIST '22, $2,800 USD), ACM SIGCHI
2018 **Big Data Contest** (3rd Place, $900 USD), NIA and Korea Big Data Forum
2018 **AI Novel Writing Competition** (2nd Place, $18,000 USD), KT Corporation and KOCCA
2014 – 2018 **Merit-based Scholarship** (6 semesters, 50% tuition), Hanyang University
2017 **Academic Research Competition** (2nd Place, $180 USD), Hanyang University

Invited Talks and Seminars

2. **Conducting 'Good' HCI Research by Asking Important Questions and Learning Together**
   - Seoul National University, HCI Lab. Seoul, Korea (Apr 2024)
   - Sungkyunkwan University, Interactive Data Computing Lab. Suwon, Korea (Mar 2024)
1. **Large-scale Text-to-Image Generation Models for Visual Artists' Creative Works**
   - Shandong University, Interactive Data Exploration System Lab. Online (Jan 2023)

Academic Services

Paper Reviewing ACM CHI ('23–'25), UIST ('24), CHI LBW ('23), C&C ('23)
IEEE PacificVis ('20–'21)

Student Volunteering ACM UIST ('22), IUI ('23)

Press Coverage

Nov 2022 The Road to Becoming a Published Researcher, IEEE Computer Society
Aug 2018 Writing Novels on Its Own... AI Contests Human Creativity, KBS (Korean)