Hyung-Kwon Ko

hyungkwonko.info
hyungkwonko@gmail.com

INTERESTS

- Human-Computer Interaction, Human-Centered AI
- Generative Models, Latent Manipulation, High-Dimensional Data

EDUCATION

- **Seoul National University** — Seoul, Republic of Korea
  M.S. in Computer Science and Engineering (Advisor: Prof. Jinwook Seo) — *Sep 2019 - Aug 2021*

- **Hanyang University** — Seoul, Republic of Korea
  B.S. in Mathematics, Minor in Industrial Engineering — *Mar 2014 - Aug 2019*

PUBLICATIONS

- **Peer-reviewed publications**

  [5] **Hyung-Kwon Ko***, Subin An*, Gwanmo Park, Seung Kwon Kim, Daesik Kim, Bohyoung Kim, Jaemin Jo, Jinwook Seo, "We-toon: A Communication Support System between Writers and Artists in Collaborative Webtoon Sketch Revision," *Proceedings of the 35th ACM User Interface Software and Technology Symposium (UIST 2022),* to appear.

  [4] Hyeon Jeon*, **Hyung-Kwon Ko***, Soohyun Lee, Jaemin Jo, Jinwook Seo, "Uniform Manifold Approximation with Two-phase Optimization," *Proceedings of IEEE VIS 2022 (Short)*, 2022.

  [3] Hyeon Jeon, **Hyung-Kwon Ko**, Jaemin Jo, Youngtaek Kim, and Jinwook Seo, "Measuring and Explaining the Inter-Cluster Reliability of Multidimensional Projections," *IEEE Transactions on Visualization and Computer Graphics (TVCG)*, Vol. 28, No. 1, pp. 551-561, Jan. 2022.

  [2] Seokweon Jung, Kiroong Choe, Seokhyeon Park, **Hyung-Kwon Ko**, Youngtaek Kim, and Jinwook Seo, "Mixed-Initiative Approach to Extract Data from Pictures of Medical Invoice," *IEEE Pacific Visualization Symposium (PacificVis)*, pp. 111-115, 2021.

  [1] **Hyung-Kwon Ko**, Jaemin Jo, and Jinwook Seo, "Progressive Uniform Manifold Approximation and Projection," *EuroVis 2020: Eurographics/IEEE-VGTC Symposium on Visualization*, pp. 133-137. 2020.

- **Preprints & Publications in progress**

  [2] **Hyung-Kwon Ko**, Gwanmo Park, Hyeon Jeon, Jaemin Jo, Jinwook Seo, "Understanding the Expectation and Concern for Large-scale Generative Models," *(In Progress)*, 2022.

  [1] Hyeon Jeon, Michael Aupetit, Soohyun Lee, **Hyung-Kwon Ko**, Youngtaek Kim, Jinwook Seo, "Distortion-Aware Brushing for Interactive Cluster Analysis in Multidimensional Projections," *arXiv preprint arXiv:2201.06379 (Under Review)*, 2022.

EXPERIENCE

- **KAIST Interaction Lab (KIXLAB)** — Daejeon, Republic of Korea
  Researcher (Advisor: Juho Kim) — *Jun 2022 - Present*

- **Naver Webtoon Corp.** — Seongnam, Republic of Korea
  AI Research Scientist — Webtoon AI — *Oct 2021 - Jun 2022*
  AI Research Intern — Webtoon AI — *Apr 2021 - Aug 2021*

Last updated: Jul 17, 2022

- **Human-Computer Interaction Lab** — Seoul, Republic of Korea
  Research Intern (Advisor: Jinwook Seo) — Mar 2019 - Aug 2019

- **LG Electronics** — Seoul, Republic of Korea
  Research Intern — CTO division — Jan 2019 - Feb 2019

- **Wesleyquest Inc.** — Seoul, Republic of Korea
  Research Associate — Jun 2018 - Aug 2018

AWARDS

- **3rd place in Big Contest**
  National Information Society Agency and Korea Bigdata Forum — Oct 2018

- **2nd Place in Artificial Intelligence Novel Competition**
  KT and KOCCA — Aug 2018

- **2nd Place in Academical team research**
  Natural Science college of Hanyang University — Nov 2017

PROGRAMMING SKILLS

- **Languages**: Python (PyTorch), JavaScript (React, D3, Svelte), C/C++, R

- **Technologies & Tools**: Git, LaTeX, Vim, AWS EC2

SERVICES & VOLUNTEER EXPERIENCE

- **External reviewer**
  IEEE PacificVis (paper) — 2020-2021

- **The Actors Theatre Workshop** — New York, NY, USA
  Nonprofit organization, Intern — Mar 2016 - Aug 2016

- **Republic of Korea Army** — Gangwon, Republic of Korea
  11th Division, Administrative Clerk — Jun 2011 - Mar 2013