

Jae Young Choi

HUMAN-AI INTERACTION · UBIQUITOUS COMPUTING · VISUALIZATION · CHEMICAL ENGINEERING

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Education

KAIST (Korea Advanced Institute of Science and Technology)

M.S. IN INDUSTRIAL DESIGN

- Advisor: Prof. Tak Yeon Lee

Sep. 2024 - PRESENT

Daejeon, South Korea

POSTECH (Pohang University of Science and Technology)

B.S. IN CHEMICAL ENGINEERING (MAJOR) / COMPUTER SCIENCE AND ENGINEERING (MINOR)

- GPA: 3.61/4.3 (Magna Cum Laude)

Mar. 2018 - Aug. 2024

Pohang, South Korea

Gyeonggi Science High School for the Gifted

MAJOR IN PHYSICS / CHEMISTRY

Mar. 2015 - Feb. 2018

Suwon, South Korea

Publications

Toward Flexible Psychiatric History-Taking and Visualization: Exploring Clinician Perspectives with LLMs

2026

Yugyeong Jung, Thu Hoang Anh Vo, Hyun Seung Moon*, **Jae Young Choi***, Hyangkyeong Oh, Ujin Lee, Eunjo Kim, Tak Yeon Lee, and Uichin Lee (* equal contributions)

2026 CHI conference on Human Factors in Computing Systems (CHI '26) (R&R)

Gaze2Prompt: Turning Eye-Tracking Data into Visual Prompts for Multimodal LLMs 🏆 Best Poster Award

2025

Jae Young Choi, Seon Gyeom Kim, Jaywoong Jeong, Ryan Rossi, Jihyung Kil, and Tak Yeon Lee

Companion of the 2025 ACM International Joint Conference on Pervasive and Ubiquitous Computing (UbiComp '25)

Grounded Generation of Embellished Bar Chart Ensuring Chart Integrity

2025

Seon Gyeom Kim*, **Jae Young Choi***, Phillip Y. Lee, Jaeryung Chung, Ryan Rossi, Jihyung Kil, Eunye Koh, and Tak Yeon Lee (* equal contributions)

2025 IEEE Visualization and Visual Analytics (VIS '25)

Chart-to-Experience: Benchmarking Multimodal LLMs for Predicting Experiential Impact of Charts 🏆 Best Paper Award 2025

Seon Gyeom Kim, **Jae Young Choi**, Ryan Rossi, Eunye Koh, and Tak Yeon Lee

2025 IEEE 18th Pacific Visualization Conference (PacificVis '25)

Experiences

Naiden Inc.

IoT ENGINEER (INTERN)

- Implemented reliable sensor-to-gateway data transmission for manufacturing IoT
- Integrated streaming data into Google Cloud with SQL-based storage/management.

Jul 2023 – Aug 2023

Seoul, South Korea

Seoul Metro

MILITARY SERVICE

- Conducted subway patrol and safety management across assigned stations.

Oct 2020 – Jul 2022

Seoul, South Korea

D-Signer

UI DESIGNER (INTERN)

- Led brand design and mobile/web UI for *Unpalette*, a social media for designers.
- Delivered assets and prototypes using Figma/Photoshop; gained lean startup experience through rapid iterations with stakeholders.

Jun 2019 – Aug 2019

Seoul, South Korea

APGC-Lab (POSTECH Start-up Incubation Center)

CONTENTS CREATOR

- Produced videos for YouTube, conducted founder interviews, and supported on-site event operations.

Feb 2019 – Jul 2019

Pohang, South Korea

Honors, Awards & Grants

Grand Prix (Mentor of Awarded Team)

Nov 2025

KAIST Undergraduate Research Participation (URP)

Best Poster Award <i>ACM UbiComp '25</i>	Oct 2025
National Runner-Up (Top 3) <i>2025 James Dyson Awards</i>	Sep 2025
Best Paper Award <i>IEEE PacificVis '25</i>	Apr 2025
1st Prize Winner (1st from 20 Korean top school teams) <i>2025 BlackOut Hackathon</i>	Jan 2025
Silver Award Winner (Top 4) <i>45th Cheil Idea Festival</i>	Jun 2024
Research Scholarship (~ USD 5,000) <i>Samsung Display</i>	Feb 2024
1st Prize Winner <i>ChatGPT & Gen-AI Usecase Contest, POSTECH</i>	Jun 2023
Academic Excellence <i>POSTECH</i>	Fall 2022, Spring 2023, Fall 2023
Korean Chemistry Olympiad <i>Korean Chemical Society</i>	Summer 2016, Winter 2015, Summer 2015

Professional Trainings

SK Telecom FLY AI Challengers (AI Bootcamp) SK TELECOM <ul style="list-style-type: none"> Learned LLM Ops technologies including Azure, Kubernetes, Ollama, and VLM. Developed <i>m.AI Tutor</i>, an AI-powered math tutoring service for underprivileged middle school students using LLMs and mobile device. 	Jun 2024 – Aug 2024
Apple Foundation Program APPLE DEVELOPER ACADEMY <ul style="list-style-type: none"> Learned iOS development with SwiftUI and Apple's design thinking methodology, Challenge-Based Learning (CBL). 	Apr 2024 – May 2024
Google UX Design Certificate COURSERA	Jul 2021 – Dec 2021
Gyeongbuk AI Blockchain Startup Incubating Program, POSTECH POSTECH	Aug 2019

Projects

<u>A Diary Study on University Students Experiences of LLM Withdrawal</u> QUALITATIVE RESEARCH <ul style="list-style-type: none"> Short-term withdrawal study design to probe how deeply LLMs have become entangled with everyday work practices. Used diary study and thematic analysis as research methodology. 	Fall 2025 KAIST
<u>O2Stick</u> PRODUCT DESIGN <ul style="list-style-type: none"> Designed and prototyped a compact device that reliably generates oxygen in emergency situations. Developed a power-free mechanism using the dissolution process of the ubiquitous material <i>Sodium Percarbonate</i> to produce oxygen. Selected as a National Runner-Up for the James Dyson Award 2025, and advanced to the International Round. (+ submitted to iF Design Award) 	Spring 2025 KAIST
<u>Text Per Second</u> ARTWORK <ul style="list-style-type: none"> A multi-device web performance envisioning a near future where AI agents engage in endless conversation, generating an uncontrollable surge of dialogue and automation beyond human oversight. (Inspired by <i>Eric Schmidt's</i> reflections on autonomous AI and Goethe's <i>The Sorcerer's Apprentice</i>) Implemented interactive communication across mobile devices using <i>Socket.io</i> and <i>Next.js</i>. 	Fall 2024 KAIST
<u>Keywords in CHI</u> INTERACTIVE DATA STORYTELLING <ul style="list-style-type: none"> An interactive web visualization narrating the evolution of research topics in CHI papers up to 2024. Conducted data collection, text embedding, dimensionality reduction, and interactive web visualization. 	Fall 2024 KAIST

Inverse Design of Aesthetic Radiative Cooler Using Particle Swarm Optimization		2024
UNDERGRADUATE THESIS		POSTECH
<ul style="list-style-type: none"> Explored inverse design mechanisms for multilayer structures to achieve color-controlled radiative cooling through thermal radiation. Research on self-emissive energy systems for sustainable thermal management. 		
Toward Next-Generation Displays: Analysis of Textile OLED Technology Trends		2024
REPORT FOR RESEARCH SCHOLAR		Samsung Display
<ul style="list-style-type: none"> Analyzed key technology trends in textile OLEDs, comparing fabric-based and fiber-based platforms for next-generation wearable displays. Investigated critical challenges and solutions in textile OLED fabrication, including matrix addressability, monorail structures for deposition uniformity, and ultrathin strain-buffering for mechanical reliability. 		
ChatRPG: A Gen-AI-Powered Immersive TRPG Assistant		Fall 2023
TERM PROJECT		POSTECH
<ul style="list-style-type: none"> Explored the feasibility of using LLMs as Game Masters in tabletop role-playing games. Integrated image generation, LLM fine-tuning, and extensions to IoT environments. 		
WebGandhi: Detecting and Filtering Hate Speech on the Internet using LLM		Fall 2023
TERM PROJECT		POSTECH
<ul style="list-style-type: none"> Developed a Chrome extension for detecting and filtering online hate speech using fine-tuned LLMs. Focused on LLM fine-tuning and NLP-based hate speech detection. 		
GPT is All You Need for the Frontend		2023
COMPETITION		POSTECH
<ul style="list-style-type: none"> Demonstrated the early feasibility of using GPT to automatically generate JavaScript functionality from static HTML code. Awarded 1st Prize in the ChatGPT & Gen-AI Use-case Contest. 		

Teaching Experiences

Invited Talk, ID.40018 Data Analysis for Designers		Fall 2025
KAIST		
Mentor, KAIST Undergraduate Research Participation (URP)		Spring 2025
KAIST		
TA, Department Website Management		Fall 2024, Spring 2025, Fall 2025
Industrial Design, KAIST		

Skills

Programming	Python, C/C++, Matlab, R, Kotlin, SwiftUI, Node.js, LaTeX
Web Dev	React, HTML5, Firebase
Cloud & LLM Ops	Google Cloud Platform, Microsoft Azure, Kubernetes, Ollama, OpenAI APIs
Design Tools	Figma, Adobe Photoshop, Illustrator, Premiere Pro, XD
Design Research	Affinity Diagramming, Thematic Analysis, Diary Study
Languages	Korean (Native), English (Fluent)