

# Jae Young Choi

HUMAN-AI INTERACTION · UBIQUITOUS COMPUTING · VISUALIZATION

☎ (+82) 10-7199-5847 | ✉ jaeyoungchoi@kaist.ac.kr | 🌐 https://jaeyoungchoi1.github.io | 📱 jaeyoungchoi1 | 🌐 jaeyoungchoikaist

## 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, Eunjoo Kim, Tak Yeon Lee, and Uichin Lee (\* equal contribution)

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 contribution)

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.

Jul 2023 – Aug 2023

IoT ENGINEER (INTERN)

Seoul, South Korea

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

### Seoul Metro

Oct 2020 – Jul 2022

MILITARY SERVICE

Seoul, South Korea

- Conducted subway patrol and safety management across assigned stations.

### D-Signer

Jun 2019 – Aug 2019

UI DESIGNER (INTERN)

Seoul, South Korea

- 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.

### APGC-Lab (POSTECH Start-up Incubation Center)

Feb 2019 – Jul 2019

CONTENTS CREATOR

Pohang, South Korea

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

## Honors, Awards & Grants

### Grand Prix (Mentor of Awarded Team)

Nov 2025

KAIST Undergraduate Research Participation (URP)

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

## Professional Trainings

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

## Projects

<b><u>O2Stick</u></b> PRODUCT DESIGN <ul style="list-style-type: none"> <li>Designed and prototyped a compact device that reliably generates oxygen in emergency situations.</li> <li>Developed a power-free mechanism using the dissolution process of the ubiquitous material <i>Sodium Percarbonate</i> to produce oxygen.</li> <li>Selected as a National Runner-Up for the <i>James Dyson Award 2025</i>, and advanced to the International Round. (also submitted to iF Design Award)</li> </ul>	Spring 2025 KAIST
<b><u>Text Per Second</u></b> ARTWORK <ul style="list-style-type: none"> <li>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 Eric Schmidt's reflections on autonomous AI and Goethe's <i>The Sorcerer's Apprentice</i>)</li> <li>Implemented interactive communication across mobile devices using <i>Socket.io</i> and <i>Next.js</i>.</li> </ul>	Fall 2024 KAIST
<b><u>Keywords in CHI</u></b> INTERACTIVE DATA STORYTELLING <ul style="list-style-type: none"> <li>An interactive web visualization narrating the evolution of research topics in CHI papers up to 2024.</li> <li>Conducted data collection, text embedding, dimensionality reduction, and interactive web visualization.</li> </ul>	Fall 2024 KAIST

**Inverse Design of Aesthetic Radiative Cooler Using Particle Swarm Optimization**

UNDERGRADUATE THESIS

- 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.

2024

POSTECH

**Toward Next-Generation Displays: Analysis of Textile OLED Technology Trends**

REPORT FOR RESEARCH SCHOLAR

- 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.

2024

Samsung Display

**ChatRPG: A Gen-AI-Powered Immersive TRPG Assistant**

TERM PROJECT

- 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.

Fall 2023

POSTECH

**WebGandhi: Detecting and Filtering Hate Speech on the Internet using LLM**

TERM PROJECT

- 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.

Fall 2023

POSTECH

**GPT is All You Need for the Frontend**

COMPETITION

- 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*.

2023

POSTECH

Teaching Experiences

**Invited Talk, ID.40018 Data Analysis for Designers**

KAIST

Fall 2025

**Mentor, KAIST Undergraduate Research Participation (URP)**

KAIST

Spring 2025

**TA, Department Website Management**

Industrial Design, KAIST

Fall 2024, Spring 2025, Fall 2025

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)