

Seik Oh

seik_oh@gatech.edu | linkedin.com/in/seikoh | github.com/seik-oh | seik-oh.github.io

EDUCATION

Georgia Institute of Technology

Ph.D. Student in Computer Science

Atlanta, GA, USA

Aug. 2025 – Present

Brown University

Sc.M. in Computer Science; GPA: 4.0/4.0

Providence, RI, USA

May 2025

Soongsil University

B.A. in English Language and Literature; B.S. in Computer Science and Engineering

Seoul, South Korea

Feb. 2022

- Teacher's Certificate (Level 2) in English
- Teacher's Certificate (Level 2) in Information and Computer
- GPA: 4.38/4.50 (Ranked 1/46)

RELATED EXPERIENCE

Graduate Research Assistant

TILES Lab, Georgia Institute of Technology

Aug. 2025 – Present

Atlanta, GA

- Conducting research in Human-Computer Interaction(HCI), data visualization, and learning science and technology(LST) with an interest in how technology and design methodologies can enhance accessibility.
- Contributed to research on the design analysis and evaluation of interactive data display for multi-pollutant air quality data.
- Contributed to analysis and evaluation of epistemic data agency research project.

Software Developer

NASA SUITS 2025 Challenge (via NASA X RISD Rover & Brown University)

Sep. 2024 – May 2025

Providence, RI; Houston, TX

- National Top 10 finalist in NASA SUITS 2025 Challenge presenting and testing at the Johnson Space Center.
- Engineered mission-specific lunar rover interfaces, translating RISD design specifications into functional software to enhance astronaut usability.

Research Assistant

LNCC Lab, Brown University

Jun. 2024 – Dec. 2024

Providence, RI

Research Assistant (Independent Study)

Sep. 2024 – Dec. 2024

- Conducted data collection, preprocessing, and analysis for cognitive modeling studies using the Diffusion Decision Model (DDM).
- Refined UI/UX prototypes based on pilot testing with 100+ beta users, integrating accessibility adjustments to reduce task error rates and enhancing research outcomes.
- Collaborated with a cross-functional team of researchers, designers, and engineers to iterate on study protocols and enhance platform scalability.

Research Assistant Intern

Jun. 2024 – Aug. 2024

- Led UI/UX redesign of the Gearshift Fellowship gamified research platform in Figma, balancing computational psychiatry requirements with accessibility and user experience.
- Implemented accessibility improvements (typography, contrast, interaction patterns) and developed participant instruction protocols with quality-control checkpoints to strengthen data validity.

AR/VR Developer

NASA SUITS 2024 Challenge (via NASA X RISD Rover & Brown University)

Dec. 2023 – May 2024

Providence, RI; Houston, TX

- National Top 10 finalist in NASA SUITS 2024 Challenge presenting and testing at the Johnson Space Center.
- Developed an AR program in Unity with MRTK3, implementing spatial mapping, gesture recognition, and object manipulation to support astronaut EVA activities and support seamless lunar exploration.
- Created AR interface modules (Egress, Navigation, Geological Sampling, Rover Command) and map functions improving spatial awareness.

iOS Developer (Learner)

Apple Developer Academy @ POSTECH

Mar. 2022 – Dec. 2022

Pohang, South Korea

- Developed inclusive iOS app (**SpaceOver**) by bridging UX research with engineering, implementing AR/VR, spatial audio and haptic feedback to support accessibility for non-visual interactions for Blind and Visually Impaired(BVI) users.
- Achieved Top 130 ranking in App Store Entertainment category; selected as one of three showcase projects presented to Apple, government representatives, and media. [GitHub]
- Conducted user-centered research and iterative prototyping with BVI astronomer Dr. Nic Bonne, applying multisensory interaction techniques to enhance accessibility.
- Created and launched multiple additional apps during the program, including **Gaongil** (ranked #14 in App Store News), **AMaDda** (family communication app), and **EcoTales** (educational game), applying agile development and design-to-code practices.

Technical Assistant

Jul. 2021 – Aug. 2021

KATE Conference

Seoul, South Korea

- Designed and managed the conference website in WordPress, improving navigation and usability for 200+ attendees.
- Edited and published 20+ lecture videos with Adobe After Effects and Premiere Pro, adding thumbnails and categorization to improve accessibility.
- Ensured accessibility and privacy compliance by removing sensitive information prior to release on the conference platform and YouTube (50+ views each).

ADDITIONAL PROJECTS

Effective Combinations of Pretext Tasks | *Python, PyTorch*

- Conducted research on multi-pretext task combinations, sequencing strategies, and curriculum learning to improve representation quality and downstream classification performance.

Multi-Caption Diffusion | *Python, PyTorch, Tensorflow, CLIP, ViT*

- Developed diffusion models for image generation using multi-caption conditioning and class embeddings; improved dataset efficiency on CIFAR-10 and COCO [GitHub].

Face Emotion Recognition System | *Python, OpenCV, VGG-16, ViT*

- Built a real-time facial emotion classification system achieving 70% accuracy; designed interface for potential applications in education and healthcare [GitHub].

Image & Video Analogies | *Python*

- Extended image analogy models to video using steerable pyramids, enabling efficient style transfer and interpretable video manipulation [GitHub].

Capstone Project & Graduation Thesis | *TypeScript, React, HTML/CSS, Version Control*

- Developed an open-source knowledge-sharing web platform and co-authored the thesis “*An Open-Source Capable Knowledge-Sharing Web with Distributed Version Control System.*”

Automated Personalized Email Sender | *Python, Excel*

- Built a Python script to send customized emails using Excel data; distributed certificates to 200+ participants of the KATE Conference.

PRESENTATIONS

Presenter

Dec. 2024

NASA SUITS Exit Pitch, Johnson Space Center

Houston, TX

- Participated as AR/VR developer at final pitch; addressed technical development questions from NASA evaluation panel [YouTube].

Presenter

May 2023

SpaceOver Spotlight, Apple Developer Academy @ POSTECH

Pohang, South Korea

- Presented accessibility-focused iOS app **SpaceOver** for BVI users as one of three showcase projects to Apple, government representatives, and media [Video].

TEACHING EXPERIENCE

- Tutor** Mar. 2017 – May 2017; Jul. 2020
Voluntary Service in Education Seoul, South Korea
- Facilitated educational activities and core subjects, improving academic performance of underserved students.
- Student Teacher** May 2020
Chungju Joongsan High School Chungju, South Korea
- Developed assessment rubrics and led interactive online lessons, enhancing student engagement and outcomes.
- Tutor** Jul. 2019
Summer Student Talent Volunteer Camp (Korea Scholarship Foundation) Gangwondo, South Korea
- Developed and taught comprehensive curricula; created all teaching materials for summer education camp.
- Private Tutor** Jul. 2015 – Jun. 2017
Self-Employed Seoul, South Korea
- Designed and delivered customized curricula for university and secondary students in English and Computer Science.

ACTIVITIES & VOLUNTEER

- IT Staff** Jul. 2021
KATE Conference Seoul, South Korea
- Staff** Jul. 2016; Jun. 2018; Jun. 2019
Asia TEFL Conference Vladivostok, Russia; Macau, China; Bangkok, Thailand
- Lead Translator and Staff** Feb. 2019; Aug. 2019
EPIK (English Program in Korea) Chungju, South Korea
- News Editor & Reporter** Mar. 2015 – Jun. 2017
The Soongsil Times, Soongsil University Seoul, South Korea
- Led editorial team, mentored reporters, and managed publication strategy for campus newspaper and special issues.

TECHNICAL SKILLS

Languages: Python, Swift, C/C++, C#, SQL, R, LaTeX, HTML/CSS, TypeScript, JavaScript
Frameworks: React, SwiftUI, UIKit, Unity, PyTorch, TensorFlow, Scikit-Learn, OpenCV
Developer Tools: Git/GitHub, Docker, Notion, Slack, Miro, PowerPoint, Keynote, VS Code, Xcode
Libraries: Pandas, NumPy, Matplotlib, SPSS
Design: Figma, Sketch
Tools & Collaboration: Miro, WordPress, Agile (Scrum & Kanban), Notion, Slack, Ryver
Languages: Korean (Native), English (Fluent)