Daeheon Jeong

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INTERESTS

Human-AI Interaction, Visualization, Multi-Modal LLM, Accessibility.

EDUCATION

Sogang University, Seodaemun-gu, Seoul, South Korea

Mar 2020 - Feb 2024

■ B.A. in Economics, B.Sc. in Software Convergence

• Cumulative GPA: 3.93 / 4.0

Harvard University, Cambridge, Massachusetts, USA

Jun 2022 – Aug 2022

Harvard Summer School

• GPA: 4.0 / 4.0

RESEARCH EXPERIENCE

Naver Labs, Naver Corporation

Jun 2023 – Present

Undergraduate Intern

Advisors: Dr. Giseop Kim and Dr. Sunwook Choi

Focus: Data Visualization, Real-Time Communication, Human-Robot Interaction

Project: Autonomous Vehicle Positional Awareness Visualization
 Modulized GIS data visualization via ROS. Real-time point-cloud rendering using WebRTC.

Project: Situational Awareness Augmentation on Multi-Passenger Scenarios
 Conducted investigative research aimed at augmenting situational awareness in multi-passenger settings.

Lifestyle Media Group, Art & Technology, Sogang University

Jan 2022 - Present

Student Researcher

Advisor: Prof. Yongsoon Choi

Focus: Conversational Agent, Accessibility, Human-AI Interaction.

- Project: Pedagogic Conversational Agent Design for Museum Learning
 Led team of five students on design research of conversational agent as an audio guide in museums.
- Project: Interactive Dial-Based Reading Interface for BLV Users
 Conducted design study on a dial-based reading interface using BLDC motors.

Semantic Graph, Graduate School of Economics, Sogang University

Nov 2021 – Jun 2023

Research Assistant

Advisor: Prof. Moonki Hwang

Focus: Graph Neural Network, Language Model, Data Visualization

Project: Graph-Based Educational Content Recommendation for K-12 (In Partnership with Visang Education)
 Assisted development of graph convolution network for a content recommendation based on behavioral data.

PUBLICATIONS

CONFERENCE PAPERS

- [1] D. Jeong, F. Reuting, and H. Jeong, "Auditory Map Generation Using Boundary Detection in a Web Environment." *Proceedings of HCI Korea 2022*, pp. 869–871, Feb 2022.
- [2] D. Jeong, Y. Kim, J. Park, and M. Cho "Spatial Screen Reader Using Touch Interface for Visually Impaired" *Proceeding, Korea Software Congress* 2022, pp. 1798–1800, Dec 2022.

WORK IN PROGRESS

[3] D. Jeong, S. Jeon, J. Min, C. Cho, D. Lim, and Y. Choi, "VirtualPicasso: A Conversational Audio Guide that Collaborates in Learning Artwork as a Characterized Artist", *Submitted to CHI 2024*

AWARDS & SCHOLARSHIPS

• Student Research Funding, Center for Convergence Education Funding Grant for Independent Undergraduate Research [\$3,300].

Sep 2022 - Jun 2023

 Award Winner, Sogang Convergence Technology Competition Sogang University, Ministry of Education, and National Research Funding Dec 2022, Jun 2023

- Topic: Conversational Museum Audio Guide (1st place).
- Topic: Assistive Touch Screen Interface for BLV users (3rd place).
- Alumni Scholarship, Sogang Alumni Foundation Based on both merit and need.

Jun 2021, Jun 2022, Dec 2022

■ Top School Challenger, DB Kim Jun Ki Cultuaral Foundation Scholarship Grant for Harvard Summer School [\$16,250].

Jun 2022 - Aug 2022

Creative Award, HCI Korea 2022
 Best Paper Nominee, Capstone Project.

Feb 2022

Dean's List, College of Economics
 For attaining a semester GPA of top 3% in college.

Jun 2020, Dec 2021

WORK EXPERIENCE

Naver Financial, Naver Corporation

Jan 2023 - Mar 2023

Software Engineer Intern

- Engaged in migrating legacy repository to new environment operating through server-side rendering.
- Participated in ground-up service deploying workflow, cooperating with multiple stakeholders.

OTHER PROJECTS

Project Lead, BLV User Studies, Independent

Mar 2023 – Present

- Participated in weekly user experience study sessions with 3 BLV team members.
- Conducted an investigation into recurring challenges encountered by BLV users on daily life.

Project Lead, Capstone design II. College of Engineering. Sogang University

Sep 2022 – Dec 2022

Advisor: Prof. Youngmin Chung

- Led team of four on the development of a touch-based web navigation assistant via UI component classification.
- Published the paper and made poster presentation via the Korea Conference on Software Engineering.

Project Lead, UI/UX design, Art & Technology, Sogang University

Sep 2021 – Dec 2021

Advisor: Prof. Yongsoon Choi

- Led a team of three with a project about translating graphical information to auditory information via boundary detection.
- Published the paper and made poster presentation via HCI Korea Conference.

ACTIVITIES

Swimming Club, Sogang University

Sep 2022 – Present

Member

Healthier, Sinchon Student Start-Up Community

Feb 2022 – Aug 2022

Founding Member

- Healthier is a startup focused on providing preemptive diagnosis prior to the visit to doctor's office.
 (In partnership with Yonsei Severance Hospital)
- Developed a interactive 3D interface to help the users specify their symptoms visually.

Student Society of Economic Studies (Moseori), Sogang University.

Sep 2020 – Sep 2021

Member

Participated on group review and presentation on academic papers from the field of economics (JEP, AER).

SKILLS

LANGUAGE

- Korean: Native language.
- English: Fluent.

PROGRAMMING

- Language: C/C++, Javascript, Python
- Web Development: Typescript, React.js, Three.js, D3.js, WebGL, WebRTC, WASM
- Other Framework: Pytorch, Tensorflow, ROS, GLSL, LATEX

DESIGN

- Interface: Figma, Photoshop, Illustrator
- Miscellaneous: Davinci Resolve, Fusion 360, After Effect

[CV compiled on 2023-10-06]