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: 4.11 / 4.3

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: Positional Awareness Augmentation on Tele-Operation Scenarios
 Conducted investigative research aimed at augmenting positional awareness in tele-operation 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, "A Conversational Audio Guide in Museum" (Anonymized Title), *Under review at CHI 2024*
- [4] D. Jeong, G. Kim, J. Min, S. Choi, and J. Jeon, "Uncertainty Visualization of Robotic Vehicle" (Anonymized Title), *Working towards HRI 2024 LBR*

AWARDS & SCHOLARSHIPS

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

Sep 2022 – Jun 2023

 Recipient, Yonsei Preliminary Start-up Competition Funding grant for a start-up project. As part of team Healthier [\$22,800]. Mar 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

Naver Financial, Naver Corporation

Jan 2023 - Mar 2023

EXPERIENCE

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 – Mar 2023

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 2023-11-08]