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Seong Hee Lee

▰▰▰▰ Education

08/2019 - 12/2022

B.S. Information Science, Cornell University, *3.98/4.00 GPA*,
, Concentration : Data Science, Interactive Technology
Cornell Data Science, Magna Cumm Laude, Dean's List (2019-2022)

▰▰▰▰ Work Experience

09/2022 - Current

MOTIONAL, *Expressive Robotics*, HRI Research Engineer
- **Authored 2 papers to IEEE/ACM Human Robot Interaction 2023, Late Breaking Report**
- Conducted VR research (20+) on the trade off between legibility and aggressiveness in autonomous vehicle (AV) lane change interaction with human drivers
- Interviewed 10+ First Responders (police officers & firefighters) on pain points of interacting with an AV to identify effective communication methods

05/2021 - 08/2021

HYUNDAI Motor Company & KAIST Interaction Lab, *Prof. Juho Kim*, Research Engineer
- Joint Research Hyundai Motor Company and KAIST University on Autonomous Vehicles (IONIC Q Robotaxi) and in-vehicle creative media experiences

05/2021 - 08/2021

ETERNAL TESTIMONY, *Sogang University, Korea Government Funded Project*, Data Analyst, ML Engineer
- Managed the Hologram Conversational AI Question Answering System for an interactive conversational exhibit of the former Korean Comfort Women. National Sponsored Program by the Korean Ministry of Gender Equality and Family

11/2020 - 02/2021

COCHL. & MERCEDES BENZ, *Software Engineer*
- Developed software prototypes for non-verbal AI integrated into MBUX car in-car non-verbal interaction interfaces.

▰▰▰▰ Research Experience

05/2022 - 08/2022

Berkman Klein Center, Library Innovation Lab (LIL), Harvard University, *Software Engineer & HCI Researcher*
- Conducted an in-depth usability study on Digital Reading Experiences of Law Students with 30+ law students. First Author to paper **submitted to IEEE/ACM Human Computer Interaction (CHI) 2023 Case Studies**
- Improved digital reading experience on H2O, an open-casebook platform by creating software for internal search, dynamic annotation, page navigation.

09/2021 - 05/2022

Remote Critique Lab, Cornell University,
, Research Assistant, Prof. Francois Guimbreitere
- Conducted research on Telepresence Robots with head movement and its effects on Presence and RoboMorphism. Conducted additional research on Eye Tracking for Remote Collaboration and communicating intention through eye movement.

02/2021 - 05/2021	**Social Media Lab, Cornell University**, , Research Assistant, Prof. Natalie Bazarova o Created NLP models that would identify Objectionable Comments on Youtube. o Interact with public-facing application programming interfaces (APIs) to scrape relevant public social media information
02/2021 - 05/2021	**Visual Media Lab, KAIST University**, , Research Assistant o Developed Algorithms for StyleGAN – high resolution 3D faces by combining StyleRig and 3DMM technology o Combined the 3DMM- 3D Morphable Face Model code into StyleGAN by writing code based on the original 3DMM paper in Tensorflow & Pytorch

▬▬▬ Publications and Posters

HRI 2023 (In Submission)	Paul Schmitt, Avarm Block, Aryman Pandya, **Seonghee.Lee**, "Legibility and Aggressiveness in Autonomous Vehicle Lane Change Movement", 2023 18th ACM/IEEE International Conference on Human-Robot Interaction (HRI), 2023
HRI 2023 (In Submission)	Paul Schmitt, Avarm Block, Aryman Pandya, **Seonghee.Lee**, Äutonomous Vehicle Protected Park Communication for First Responders", 2023 18th ACM/IEEE International Conference on Human-Robot Interaction (HRI), 2023
CHI 2023 (In Submission)	**Seonghee.Lee**, Jack Cushman, Catherine Brobston, "H2O: Open casebook, Digital Reading Experiences of Law Students",Harmony Eidelton, 2023 18th ACM/IEEE International Conference on Human-Computer Interaction (CHI), 2023
CURJ 2023	**Seonghee.Lee**, Daniela Rodriguez-Chavez, Ëxploring the Effects of Personal Impact Communicated Through Eco-Feedback Technology for Reducing Food Waste"Cornell Undergraduate Research Journal (CURJ), 2023
HRI 2022	**Seonghee.Lee**, Jin.Ryu and Jessie.Y.Kim, ÏEUM: Bridging Transportation to Humans,"2022 17th ACM/IEEE International Conference on Human-Robot Interaction (HRI), 2022

▬▬▬ Awards & Grants

03/2022	**Best Student Paper- Student Design Competition**	*IEEE/ACM Human Robot Interaction (HRI) 2022*
11/2021	**Ann S. and Robert R. Morley Research Grant $1000**	*Cornell University*
08/2019-12/2022	**Dean's List of Academic Excellence**	*Cornell University*

▬▬▬ Patent

12/2022	Paul Schimtt, Avaram Block, Seonghee Lee **Autonomous Vehicle Protected Park Communication Protocol** (Filing)

▬▬▬ Invited Talks

07/2022	**Harvard Library Innovation Lab** Human Autonomous Vehicle Interaction

▬▬▬ Teaching and Mentorship

02/2020 - Current	**Inspirit AI Creators Instructor - Stanford & MIT** o Instructed K-12 students on projects such as Self-Driving Cars, Chatbots for Mental Health, and Interactive Games using Computer Vision. Gave lectures on Algorithmic Fairness, Human AV Interaction, and Data Science. o Mentored student projects using Scratch, Python, and Teachable Machine.

08/2022 - Current	**CS/INFO 3300 Data Driven Web Applications - Teaching Assistant**
	o Teaching Assistant for CS 3300, a course that teaches practical skills for building web pages with data mining algorithms and visualization design theory.
	o Office Hours assisting students on using D3 Javascript library to create interactive web applications
08/2021 - 05/2022	**CS/INFO 2950 Introduction to Data Science - Teaching Assistant**
	o Office Hours for INFO 2950 answered questions from students on discrete probability, Bayesian methods, graph theory, power law distributions, Markov models, and hidden Markov models.
	o Mentored projects on applications from various areas of information science such as the structure of the web, genomics, social networks, natural language processing, and signal processing.