

Jinwoo Baik

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EDUCATION

University of California, Los Angeles
Master of Engineering

Aug 2024

University of California, Los Angeles
Computer Science B.S., Physics B.A.

Jun 2023

EXPERIENCE

Undergraduate Researcher, UCLA Artificial General Intelligence Lab

May 2022 - Jan 2024

- Investigated the effectiveness of a novel machine learning model that captures continuous interactions among multi-agent systems using graph neural networks
- Huang, Z., Hwang, J., Zhang, J., **Baik, J.**, Zhang, W., Gu, Q., Wodarz, D., Sun, Y., & Wang, W. Causal Graph ODE: Continuous Treatment Effect Modeling in Multi-agent Dynamical Systems. The Symbiosis of Deep Learning and Differential Equations (DLDE) workshop at NeurIPS, 2023 | The Web Conference (WWW) - Web4Good, 2024 <https://doi.org/10.48550/arXiv.2403.00178>

Software Development Engineer Intern, Amazon

Jun 2022 - Sep 2022

- Developed diagnostic software to display internal states of Amazon Alexa devices for debugging
- Analyzed the health of the internal audio pipelines of Alexa and Echo devices by detecting audio corruption and audio frame drops

Education Statistics Intern, American Institutes for Research

Jul 2021 - Sep 2021

- Analyzed results from the National Assessment of Educational Progress (NAEP) to track trends about academic performance across various demographic groups
- Implemented the XES standard in R for internal use

Undergraduate Researcher, Elegant Mind Collaboration @ UCLA

May 2020 - Sep 2021

- Coordinated a student group and developed Arduino and Python code for research and analysis
- Alfifa U., ..., **Baik J.**, ... et al. Visual Perception of 3D Space and Shape in Time - Part 1: 2D Space Perception by 2D Linear Translation <https://doi.org/10.1101/2022.03.01.482161>

Research Intern, MIT Research Laboratory of Electronics

Jun 2018 - Aug 2018

- Developed a Java program to generate phoneme and acoustic cue labels to augment speech data
- Huilgol S, **Baik J**, Shattuck-Hufnagel S. A framework for labeling speech with acoustic cues to linguistic distinctive features. The Journal of the Acoustical Society of America. 2019 Aug 26;146(2):EL184-90. <https://doi.org/10.1121/1.5121717>

PROJECTS

Music Language Model

github.com/jbaik1/Music-LM

- Trained a GPT model from music using BPE for tokenizing
- Generated music samples with logical chord progressions and rhythms

N-Body Navigation

github.com/jbaik1/n-body-navigation

- Created an RL agent to navigate complex n-body environments