Jinwoo Baik

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EDUCATION

University of California, Los Angeles   Aug 2024
Master of Engineering - Artificial Intelligence

University of California, Los Angeles   Jun 2023
B.S. Computer Science | B.A. Physics

EXPERIENCE

Software Development Engineer Intern, Amazon   Jun 2022 - Sep 2022
- Accelerated the debugging process of Alexa devices by up to 2 weeks by developing an Android middleware diagnostic application in Java
- Designed native C++ software to monitor audio corruption by detecting frame drops

Undergraduate Researcher, UCLA Artificial General Intelligence Lab   May 2022 - Jan 2024
- Demonstrated an 18% decrease in RMS error of our GNN-based ML model compared to other baselines by preparing and processing COVID-19 and simulated tumor growth datasets for evaluation
- (Published) Huang, Z., Hwang, J., Zhang, J., **Baik, J**., Zhang, W., Wodarz, D., ... & Wang, W. (2024). Causal Graph ODE: Continuous Treatment Effect Modeling in Multi-agent Dynamical Systems. In *Proceedings of the ACM on Web Conference 2024* (pp. 4607-4617). https://arxiv.org/abs/2403.00178

Education Statistics Intern, American Institutes for Research   Jul 2021 - Sep 2021
- Investigated learning patterns for all demographic groups by analyzing data using the Pandas library for over 630,000 students that took the National Assessment of Educational Progress
- Developed an implementation of the XES standard in R to aid integration of R software with other internal databases

PROJECTS

AI Enhanced DSAR Solution (Capstone Project)   Collaboration with Foxit Software
- Developed a full-stack web application as a team to process Data Subject Access Requests related to data privacy laws in the European Union
- Used SQLite for mock data, and file storage was supported using Firebase and OpenAI vector stores
- Upon user request to access their personal data, used OpenAI's GPT-4 to generate the SQL query or the file retrieval instructions to efficiently process the requests while maintaining high accuracy

Music Language Model   github.com/jbaik1/Music-LM
- Created a music-based language model by developing a custom BPE tokenizer for a large dataset of classical music to generate training data for a GPT model
- Produced high quality music samples after training in a Google Cloud VM server for 48 hour

SKILLS

Languages:	Python, Java, C++, R, JavaScript
ML Skills:	NLP/LLMs, PyTorch, Generative AI, Prompt Engineering, Computer Vision
SW Skills:	MongoDB, Google Cloud, AWS, Android, SQL, Git, Linux, Agile