

Leejun Kim

lkim0402@cs.washington.edu • github.com/lkim0402

Education

B.S. Computer Science, University of Washington - Seattle

Sept 2023 - June 2026

Relevant Coursework: Deep Learning, Data Structures & Parallelism, Hardware/Software Interface, Foundations of Computing 1 & 2, Differential Equations, Linear Algebra, Calculus 1-3, Software Design & Implementation

Experience

Research Assistant, Makeability Lab @ UW

Sept 2024 - Present

- Developing an AR HoloLens system that visualizes sounds through shape-based representations for DHH users, using real-time audio processing in Unity and the GPT API for real-time script generation and compilation.
- Utilizing prompt engineering through usage of multiple AI agents for different tasks in the entire pipeline.
- Collaborating with research team on accessibility features and user experience design.

Machine Learning Intern, ArtygenSpace

Aug 2024 - Dec 2025

- Designed and implemented a RAG pipeline for the award-winning ARpedia project, leveraging LangChain and GPT-4 to enable real-time, context-aware sound effect retrieval from a comprehensive CSV dataset containing over 1,000 audio samples.
- Optimized the system by iteratively testing various LLM models and embeddings.

Unity Developer Intern, ArtygenSpace

Aug 2024 - Dec 2025

- Led development of 3 experimental AR/XR multiplayer game prototypes using Unity, showcasing one at public exhibitions.
- Cosmic Flip: Integrated LiDAR sensor data with Unity for real-time multiplayer card game mechanics.
- BalanceX: Developed Apple Vision Pro Jenga game utilizing spatial computing and XR interaction.
- Wyft: Built an AR scavenger hunt app using QR codes and shared spatial anchors, implemented in public events.

Assistant Technician (Part-time), Student Technology Assistance Team @ Pierce College

Oct 2022 - June 2023

- Resolved diverse technical issues related to both software and hardware components
- Assisted on average 60+ students per week with 99% accuracy

Projects

YouTube AI Link Flashcard

Feb 2024 - Present

- Developing an AI educational platform to analyze YouTube transcripts, using LangChain, FastAPI, Uvicorn, and React to generate and display flashcards. Generated an algorithm to pull the most important information out of the transcripts.

BinGenius — github.com/lkim0402/BinGenius

Jan 2024

- Developed a CNN deep learning model 'BinGenius' that classifies trash (recyclable, general waste, compost).
- Leveraged the GaryThung/TrashNet dataset, comprising over 5,000 annotated trash images, to train and validate the model.
- Used TensorFlow for preprocessing, hyperparameter tuning, image augmentation, and normalization techniques.
- Fine-tuned a VGG16 model pretrained on ImageNet.
- Utilized Python, HTML, CSS, and a server using Flask and Streamlit for uploading images and providing classification results.
- Achieved 75% accuracy and secured 3rd place in the competition.

TensorFlow Certification

Sept 2023

- Developed various binary classifiers, an AI model to classify articles and text, a sentiment analysis model that distinguishes emotion in tweets, an NLP text generator based on Shakespeare's sonnets, and a time series model using recurrent neural networks (LSTM) and convolutional layers (CNN) that gives predictions
- Obtained TensorFlow certification.

Crown of Persuasion — aki-bread.itch.io/crown-of-persuasion

Jan 2025

- Developed a 2D platformer Visual novel style game for the Pirate Game Jam 2025 using Unity and C# in ~3 weeks

Activities

Project GIVEN, Co-founder — projectgiven.org

Jan 2018 - Sept 2023

- Directed 25+ various food banks, educational, medical missions in 5+ developing countries
- Hosted 10+ medical events by inviting local and remote doctors for free treatment to 200+ local patients online and offline

Skills

Code: Python, Java, C, C#, HTML, CSS, JavaScript, TypeScript, React, Next.js, Tailwind CSS

ML/AI: TensorFlow, PyTorch, scikit-learn, Matplotlib, keras, LangChain, HuggingFace, ChromaDB

Dev tools: Linux, Git, LaTeX