Beide(Zhaoying) Liu

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EDUCATION

University of California, Los Angeles
M.S. IN COMPUTER SCIENCE
Los Angeles, CA | Expected Graduation December 2025

University of California, Irvine
B.S. IN COMPUTER SCIENCE
Irvine, CA | Graduation Date: March 2023

SKILLS

Technical:
Python • C++ • Java • HTML • SwiftUI • Javascript • MySQL • Postgre • Mongo • R • Lisp • Scheme • MIPS Assembly • Git/Github • Prolog • Logic • AngularJS • Express

COURSEWORK

Artificial Intelligence
Machine Learning/Data Mining
Data Structures
Algorithm Design
Principles of System Design
Information Retrieval
Database Management
Web Development

TECHNICAL EXPERIENCE

Student Researcher | Center for Vision, Cognition, Learning, and Autonomy, UCLA

Los Angeles, CA | April 2024 –Present

- Working as the second author on the paper "SlowFast-VGen: Slow-Fast Learning for Action-Driven Long Video Generation ", a generative model that enables user navigation through command inputs in a generated video series, submitted to ICLR 2025(top 5%)
- Created and integrated Unreal Blueprints and Python scripts to establish TCP ports for remote control via external inputs.
- Developing many simulated web environments such as one stop shops, map navigation, and libraries for embodied web agents using Express and react.js

Student Researcher | Visual Machines Group, UCLA

Los Angeles, CA | April 2024 –Sep 2024

- Implemented DesnowNet, a deep-learning neural network that removes the snow from a given picture.
- Utilized Inception-V4 convolutional neural network architecture to extract descriptors from the images.

Software Engineering Intern | Remeal Foods

Irvine, CA | June 2023 – September 2023

- Designed the Database structure to store store-relevent information.
- Deployed the designed database onto Postgres.
- Developed RESTful backend APIs by using Java to communicate with Postgres Databases to retrieve information.

Research Intern | Game Learning Society

Irvine, CA | June 2022 – September 2022

- Created an NLP program that helps researchers to correct interview transcripts by using LTSM neural networks.
- Saved reviewer's time per transcript from 20 minutes per transcript to 2 minutes per transcript.

Research Assistant | Synthetic Evolution Lab, UC Irvine

Irvine, CA | June 2019 – March 2020

- Designed and prototyped programs that enabled researchers to slice thousands of DNA combinations
- Rescaled raw experimental data into interpretable DNA matrices using Python.
- The work has been published:
  doi: https://doi.org/10.1101/639120

Student Staff |Office of Student Housing, UC Irvine

Irvine, CA | September 2020 – June 2021

STEM Coordinator | Engineering Student Council, UC Irvine

Irvine, CA | September 2018 – June 2019

PROJECTS

Pedible
A web application that allows the users to identify harmful substances in day to day objects by taking snapshots. The object recognizion utilizes Google Gemini API, and Computer Vision Models Trained on ImageNet21K.

Airdrum
Deployed on the web, Airdrum is a web project built under angular framework. By utilizing a third library called handtrack.js, this web application simulates users playing drums based on different hand gestures.

Fablix
A web application for browsing, searching and purchasing movies in a database that is created by parsing through Stanford's movies library. The application runs on Linux VM with Apache Tomcat serving as a REST API. The frontend is written with HTML, CSS, and JavaScript.

VisArt
VisArt is an application for IOS that effectively uses ARKit 2, and The Metropolitan Museum of Art Collection API. The user can select/upload artworks that they like and project them onto flat surfaces such as walls through augmented reality.