CODY LEJANG

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EDUCATION

University of California, Los Angeles (2021-2025)
Bachelor of Science, Cognitive Science, Specialization in Computer Science, Data Science Engineering Minor
Coursework:

- Object Oriented Software Development, Data Structures and Algorithms, Linear Algebra, Statistics, Decision Theory, Machine Learning, Data Science, Signal Detection Theory, Natural Language Processing, Database Systems, Human Computer Interaction

Carnegie Mellon University (2025-2026)
Master of Science, Data Analytics for Science
Coursework:

- Computational Modeling, Parallel and Distributed Computing

EXPERIENCE

COLUMBIA ENGINEERING May 2025 - present
Machine Learning Researcher

- Constructed a 2-armed bandit RL agent (discounted Beta–Bernoulli updates; softmax action selection) generating 450-trial datasets for analysis
- Implemented a 3-step LSTM (stimulus, decision, feedback) with block-wise resets; BPTT/Adam training reached 75% decision accuracy
- Designed linear/logistic probes to decode latent variables from hidden states: utility difference, choice, and reward-prediction error with an R^2 of 0.92
- Engineered a Pytorch pipeline for time-resolved probing of hidden states and population "percent-excited" metrics to research preSMA-like temporal dynamics

SYNAPTIC (NEWPORT BEACH) Mar 2024 - Mar 2025
Software Developer

- Provided financial advisors with a daily updating, dynamically optimized portfolio, outperforming static allocations by 15% and beating the S&P 500 over a one year period
- Synthesized insider transactions, trend projections, and cash flow information into lag regression model using Python by aggregating ORATS API, pypoft, and time series databases
- Developed an LSTM neural network predicting stock trends from time series databases, achieving a RMSE under $7
- Translated previous MATLAB pipeline into automated Python, Git, and shell script stack, improving runtime by 70%

KARDDER (LOS ANGELES) Dec 2023 - Feb 2024
UI/UX Intern

- Collaborated with a team of 20 interns and designed 7 interface prototypes, based on Firebase analytics, tripled users' average session duration from 2.5 minutes to 7.5 minutes
- Conducted market research across 3 college campuses, 5 gyms, and 10+ popular venues, gaining insights from over 500 potential users to shape key product features and marketing strategies
- Spearheaded development of a location hotspot "heatmap" interface in Figma, increasing user engagement by an estimated 30% based on A/B testing results

PROJECTS

Digiclo | *React Native, Tailwind CSS, HuggingFace Transformers, PyTorch, MongoDB, FastAPI*

- Developed a full stack React Native app styled with Tailwind CSS and backed by MongoDB, enabling users to upload, browse, and filter their digital wardrobe through a mobile interface
- Constructed an item auto-tagging system using a Hugging Face BLIP model on PyTorch and FastAPI
- Presented the app to 100+ students and professors at a UCLA-hosted HCI conference

Eyewitness Testimony Simulation | *Python, PsychoPy, Torch, MTCNN, Facenet*

- Developed a signal detection experiment in PsychoPy to study the impact of exposure duration on eyewitness testimony, gathering data from over 30 participants. Constructed a computer vision pipeline using MTCNN and FaceNet to simulate a "machine witness," beating human performance on valid trials.

Personal Portfolio Website | https://codylejang.github.io/ | *React, Tailwind CSS, Framer Motion, Vite*

- Engineered an archive fashion–inspired personal site focused on typographic storytelling and minimalist design.
- Implemented animation logic with Framer Motion for free-flow interface

SKILLS

- Languages: Python, C++, R, SQL, HTML, Javascript, CSS, Bash
- Tools: Tensorflow, Huggingface, Pytorch, Scikit-Learn, React, Pandas, Figma, Git, MS Office