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

Extracurriculars*: UCLA Badminton:* Athlete (2021-2024), Team Manager / Safety Officer (2022-2023)

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

EXPERIENCE

COLUMBIA ENGINEERING   May 2025 - present
Machine Learning Researcher
- Constructed a 2-armed Bayesian 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 with real-time activity visualizations 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