

Jace Kasen

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Education

University of California, Los Angeles (UCLA)

June 2026

B.S. in Computer Science | Minor in Anthropology | GPA: 3.5/4.0

Los Angeles, CA

Relevant Coursework: Data Structures & Algorithms, Software Engineering, AI, Neural Networks & Deep Learning, Computer Vision, Distributed Systems, Operating Systems

Skills

Programming: Python, C/C++, Java, JavaScript/TypeScript, SQL

Frameworks & Tools: PyTorch, Pandas, React, Node.js, Git

Databases: PostgreSQL

Languages: English, Russian, Kazakh

Projects

EMG-to-Text Sequence Decoding

Course Project

PyTorch, LSTM, GRU, ResNet18, Transformer, CTC Loss

- Compared four sequence architectures (bidirectional LSTM, GRU, ResNet18+LSTM, Transformer) for decoding typed text from wrist EMG signals
- Reduced character error rate from 24.18% (TDS baseline) to 18.95% using bidirectional LSTM with CTC loss
- Analyzed insertion/deletion/substitution error profiles to diagnose GRU's train-test gap and Transformer's failure on long sequences
- Built shared preprocessing pipeline with log-spectrogram features, SpecAugment, and greedy CTC decoding

Heavy-Duty Vehicle Charging Station Site Selection

Course Project

Python, PyTorch, Faster R-CNN, ResNet-50, FPN, DOTA Dataset

- Fine-tuned Faster R-CNN (ResNet-50 + FPN) on DOTA aerial dataset to detect medium/heavy-duty vehicles (Class 3–8) from satellite imagery
- Built COCO annotation pipeline by tiling high-resolution images into 1024px patches and converting polygon labels to bounding boxes
- Queried 2,044 Google Maps tiles over UCLA and generated a spatial density heat map of truck activity via model inference
- Modeled EV charging infrastructure needs for California's mandate (510K zero-emission trucks by 2035) using detected vehicle density

Financial Analytics App (FinSight)

Course Project

React Native, TypeScript, Node.js, Express.js, PostgreSQL, Supabase

- Built cross-platform iOS/Android budgeting app targeting 100+ concurrent users; designed RESTful backend with 20+ endpoints for auth, transactions, goals, and social feed
- Implemented SSO and JWT authentication via Auth0 with token refresh, role-based access control, and TLS for all connections
- Developed financial dashboard with income/expense charts, budget progress circles, and category-level spending breakdowns
- Designed PostgreSQL schema (10+ tables) and social accountability layer with 3-tier transaction visibility, comments, and reactions

Campus Involvement

President, Russian-Speaking Student Association at UCLA

May 2024 – June 2026

- Reinvigorated club to 80+ members; built strong relationships with 30–40 active participants
- Managed logistics, budget, and outreach for cultural and social programming
- Founded the Central Asian Student Union at UCLA