FELIX ZHANG

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Education

University of California, Los Angeles (**UCLA**)   mGPA: **3.9** | uGPA**: 3.8**
Master of Science in Computer Science (Exceptional Student Admission Program)   2021-2023
Bachelor of Science in Computer Science (Early Graduation to pursue accelerated MS/BS)   2018-2021

Coursework: Deep Learning in Computer Vision, Computer Vision, Fairness in NLP, AI and Climate Change, Reinforcement Learning, Adversarial Robustness, Data Mining, Deformable Models, ML-Driven Video Analytics, Natural Language Processing, Medical Imaging, ML in Genetics, Intro to ML
Involvement: Sigma Eta Pi, Entrepreneurship Fraternity (Director of Marketing); Daily Bruin (Online Intern); Creative Labs; DevX

Work Experience

Facebook   Spring 2022
Software Engineering Intern—AI/ML
- Improving Multimodal Retrieval using Facial Emotion detection and Audio Event Detection models
- Experiment and perform ablations for various models to surpass production model baseline
- Experimented with implementing OSCAR pretraining to improve language grounding for audio text tokens

Verkada   Summer 2022
Software Engineering Intern—Computer Vision
- Development of models from baselines to prod by experimenting with architectures, pretraining, imbalanced dataset measures
- Improved Pedestrian Attribute, Vehicle Attribute and Make Models deployed in production
- SimCLR pretraining to improve pedestrian attributes using motion-tracked pairs of pedestrians

Honey (PayPal)   Summer 2019
Software Engineering Intern
- Saved users 30k+/month by reverse engineering unsupported domains to add functionality for the Honey Extension.
- Added affiliate tagging to generate revenue on seven travel sites for Firefox by integrating JavaScript between extension and website
- Used NodeJS to interact with website databases to create Honey coupon path and checkpoints to help users save money

Research Experience

PLUS Lab at UCLA   Fall 2022-
Research Intern at Peng's Language, Understanding, and Synthesis Lab | Supervised by Professor Violet Peng for Thesis
- Guided Generation of Language Models that preserve pretraining while improving commonsensicality and lexical constraints
- Exploring guidance using External Knowledge Graphs (ConceptNet) to generate more coherent results for lexical constrained tasks

Center for Vision Cognition, Learning, & Autonomy   2021-2022
Research Intern at Intuitive Physics Group (VRGym) | Mentored by Song-chun Zhu, Xie Xu, Mark Edmonds
- Conditioned Scene Understanding on novel video dataset of ShapeNet objects in scenes simulated in Unreal 4.
- Ran baseline experiments with Slot-Attention Network and explored Language and Scene Graph priors on novel dataset

Bruins in Genomics Research Program at UCLA   Summer 2020
Research Intern at Zaitlen Lab | Research Excellence Award
- Researched to understand how Polygenic Scores (PRS) vary between quantiles in genotypes of the UK BioBank Data
- Ran simulations using Python/R to demonstrate power of quantitative regression and meta-regression methodology on PRS
- Presented findings of power and false positive rate on GxE, GxG, and additive models to research symposium of UCLA faculty

Awards/Technical Skills

- Cal Hacks Fellowship, National Merit Semifinalist, National AP Scholar
- Python, C++; PyTorch, Torch Lightning, HuggingFace, AWS, PSQL, Git
- NLP (BERT, GPT, Transformers, LSTM…), Computer Vision (YOLOv3, GANs, U-Net…), ML (SVM, Random Forest, KNN…)
- SAT 1570, ACT 35