DYLAN GOETTING

(510) 926-2613 · <u>dylan-goetting.github.io</u> · dylangoetting@berkeley.edu

EDUCATION UC Berkeley - M.S. Electrical Engineering & Computer Science, advised by Jitendra Malik May 2025 UC Berkeley - B.S. Electrical Engineering & Computer Science | B.S. Business Administration May 2024 Grad GPA: 4.00 Management, Entrepreneurship, & Technology Program (50 accepted students out of 2000+) CS Coursework (*Graduate-level): Robotics*, Deep RL*, LLM Agents*, Computer Vision, Discrete Math, Tech GPA: 3.99 Computer Architectures, Data Structures, Computer Security, Statistical Learning, Circuits and Control Total GPA: 3.90 WORK EXPERIENCE Berkeley Artificial Intelligence Research, Berkeley CA Aug 2023 – Present Graduate Researcher First author on VLMnav, accepted to CoRL 2024 Workshop on Language and Robotic Learning, Website, Arxiv, Code Second author on SSEAL, First place winner at the LLM Agents MOOC Hackathon, hosted by Berkeley RDI. Under review at ICML 2025. A novel exploration framework enabling agents to autonomously improve and learn. Paper. Code VLA as Tools: Developed novel system, planning agent iteratively prompts a Vision-Language-Action model. Paper Used IsaacGym and Pytorch to improve adaptation mechanisms for quadruped robots in a multi-agent environment IMC Trading, Chicago IL Jun 2023 – Aug 2023 **Quantitative Trading Intern** • Used statistical learning techniques and classical ML to model and predict toxic flow within the S&P index operation Aug 2023 – Dec 2023 LeanLaw, Remote CA Machine Learning Engineer (Contract) Led a team of 6 engineers to build an LLM application to answer clients' queries about their finances. Designed and built a novel vector database of language - SQL pairs, which on inference queried labels based on cosine similarity for in-context learning. Built in a cybersecurity layer to ensure data privacy and prevent prompt injections Cognitiv Corp, Seattle Wa Jun 2021 – Aug 2022 Machine Learning Engineer - 2022 Developed models with 10% higher AUC-ROC by implementing Bayesian Optimization into the company's deep learning library to efficiently search through hyperparameters, model architectures and feature combinations Streamlined operations with a pipeline to automate model training and evaluation while decreasing computational spend Machine Learning Research Intern - 2021 Designed and created a simulated advertising environment for the training of a reinforcement learning agent Used RL algorithms to create an intelligent bidding agent capable of learning user behavior based on browsing data Created DDPG agent that was able to optimize the cost per acquisition of an advertising campaign, respond to changing reward signals within the environment and stay within a budget constraint, all novel innovations Attune Inc, Remote CA Sep 2022 – Dec 2022 Machine Learning Engineer (Contract) Trained deep learning models for unsupervised anomaly detection on multidimensional time data from air quality sensors PROJECTS

Voculator (<u>Launchpad</u>) – 2023

- Lead a team of machine learning developers to build an unsupervised speech generation and classification model
- Used neural audio codecs as a representation and trained CNN and transformer models to generate speech

Independent ML Research - 2021

• Published the first Reinforcement Learning solution to solve the Newsvendor problem, using deep policy gradients Arxiv

Center for New Music and Audio Technologies (CNMAT) Research – 2022, 2021

• Built rendering software using ThreeJS to animate real-time data from a mocap suit in 3-D on an artistic remote server

SKILLS

- Machine Learning: Transformers, diffusion, simulators, agents, GPU inference, reinforcement learning, LLMs, VLMs
- Languages: Python, Java, HTML, Javascript, SQL, MATLAB, Swift, Scheme, C, C++, Go, shell
- Technologies: Pytorch, ROS, IsaacGym, Pandas, React, GraphQL, Git, AWS Athena, ThreeJS, Xcode, advanced Excel
- Math: Strong math competition experience, 2x AIME qualifier, 2x AMC school winner out of 4000 students