Govind Pimpale

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EDUCATION

University of California, Los Angeles

Exp. Grad 2025, Computer Science Engineer

Bachelor of Science in Computer Science — GPA: 4.0, Tau Beta Pi, Upsilon Pi Epsilon

TECHNICAL SKILLS

Languages: Python, C++, Javascript, Typescript, HTML/CSS, C#, SQL

Frameworks: Tensorflow, Pytorch, Fast.AI, React, Node.js, Bootstrap, Flask, HuggingFace, MongoDB, Unity Developer Tools: Git, VS Code, Google Cloud Platform (GCP), AWS, PyCharm, Jupyter Notebook, JupyterLab

Libraries: Scikit-Learn, NumPy, Pandas, Matplotlib / Seaborn

EXPERIENCE

Machine Learning Intern

Jun. 2023 – Oct. 2023

 $Consensus\ NLP$

Los Angeles, CA

- Boosted Consensus Search's query speed by over 80% without losing performance via knowledge distillation of machine learning (ML) models in the search pipeline.
- Improved model performance by re-training old models with emerging techniques (Function-Matching Distillation and Stochastic Weight Averaging).
- Fine-tuned Consensus ChatGPT plugin's ability to handle broad question syntax with automated prompt search.
- Fixed the Consensus Meter's tendency to agree with common misconceptions.
- Built a query expansion model to improve search pipeline performance on questions with inexact wording.

AI Researcher

 $Jun.\ 2023-Present$

University of California, Los Angeles, Bolei Zhou Lab

Los Angeles, CA

- Wrote four tutorials for a mathematical introduction to human-friendly reinforcement learning.
- Built a library of offline Reinforcement Learning (RL) benchmarks on the Metadrive environment.

Bioinformatics Researcher

Sep. 2022 – Aug. 2023

University of California, Los Angeles, Orsulic Labs

Los Angeles, CA

• Analyzed the relationship between ovarian cancer cell features and cancer progression with large computer vision models and discovered links between risk-factor genes and tumor appearance.

PROJECTS

AlphaZero-Connect4 | Python, Jupyter, Pytorch, Matplotlib, PIL | Github

Dec. 2022 – Jan. 2023

- Reimplemented the AlphaZero algorithm on Connect-4, which is so far undefeated by humans at AI Safety socials.
- Benchmarked AlphaZero against earlier RL algorithms DQNs, neuro-evolution, and REINFORCE.

Growing Images with Cellular Automata | OpenCV, PyTorch | Github

Apr. 2023 – May. 2023

• Implemented Neural Cellular Automata trained to produce and regenerate images. Like Conway's Game of Life, the image grows from a single pixel with an RNN as the learned update rule.

Day2Night | Python, OpenCV, Keras, Pix2Pix, PIL, Git | Github

July 2020 – Oct. 2020

• Trained a computer vision Pix2Pix model to convert day photos to night photos (and vice versa).

ACTIVITIES

Projects Officer | Competitions Track Lead

Jun. 2023 - Present

ACM AI

Los Angeles, CA

• Hosted a 7-week projects track for 30 students to compete in the Kaggle Stanford Ribonanza competition.

Workshops & Computational Resources Director

Oct. 2022 – Present

AI Safety at UCLA

Los Angeles, CA

- Ran the AI Safety Intro Fellowship, a program to introduce students to the concept of AI alignment and safety.
- Organized UCLA's ML for Alignment Bootcamp, a mathematical workshop to deep-dive into Transformers.
- Maintained software and access on the research workstation.

Secretary

Oct. 2022 – Present

Engineering Society at UCLA (ESUC)

Los Angeles, CA

• Hosted UCLA Engineering's 2023 Alumni Coffee Chats and organized the 2023 Spring Engineering Art Gallery.