

# Vishal Yathish

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## EDUCATION

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### UCLA

Los Angeles, CA

*B.S. Computer Science and Engineering*

*Sept. 2023 - June 2025*

- 3.97 GPA. Coursework: Data Management Systems, Web Applications, Trustworthy AI (Graduate Level), Data Mining, Software Construction, Computer Organization, Algorithms and Complexity, Operating Systems, Logic Design of Digital Systems
- Technology Management Technical Breadth. Head LA for CS 31: Intro to Computer Science taught by Professors David Smallberg and Howard Stahl

## EXPERIENCE

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### UCLA ScAI Lab

Los Angeles, CA

*Deep Learning Researcher*

*April 2024 - Present*

- Building generalized algorithmic reasoning LLM under Prof. Wei Wang; fine-tuning Llama2 and Mistral to improve performance on graph-based problems – long-range multi-step problem solving capabilities
- Developed natural language translations of vectorized CLRS graph algorithm inputs for use in multi-task training
- Working on adapting linear state space model architecture for graph algorithmic reasoning

### xNeurals

Los Altos, CA

*Software Development Intern*

*June 2023 – Sept. 2023*

- Developed Python API to streamline animated video production based on input scripts for AI-VFX startup
- Integrated HuggingFace's 'zero-shot classification' model to parse & categorize input text and query multimedia database, and utilized FFMPEG for runtime frame concatenation
- Helped manage company GitHub repository; organized project/codebase migration from Google Drive

## PROJECTS

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### Bruin Swap | *JavaScript, HTML, PostgreSQL, Git, AWS*

[GitHub](#)

- Built full-stack web app for UCLA students to coordinate course swaps/drops with each other
- Designed and maintained project PostgreSQL database, hosted on AWS RDS instance
- Built CRUD backend API using Node.js + Express, enabling JWT-based authentication, post creation and interaction, etc.; used Nodemailer framework to send email notifications to users on status updates

### AV Traffic-Sign Recognition System | *Python, Google Colab*

- Designed robust classification model for traffic sign perception in AVs with PyTorch, yielding 93% accuracy
- Researched and tested adversarial (FGSM, PGD, Carlini-Wagner) attacks, data poisoning attacks, backdoor attacks, etc.; implemented adversarial training to mitigate such threat models

### On The Rise Podcast

[Spotify](#)

- Hosted podcast where I interview founders/leaders across sectors, incl. co-founders of Zepto (YC W21), Slope (YC S21), investors at YC and Berkeley Skydeck, & top student innovators
- Podcast has reached 130K+ views and is available across 7 streaming platforms

## TECHNICAL SKILLS

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- Python (Pytorch, TensorFlow, Flask, Selenium), C/C++, Java, Kotlin, JavaScript/TypeScript (React, Vue, Node), Angular, HTML/CSS, R, Lisp, Shell
- PostgreSQL, MySQL, MongoDB, Apache Spark (PySpark, SparkSQL), Redis, Neo4j/Cypher

## ACHIEVEMENTS

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- Dean's Honors List (2X); Inductee of Eta Kappa Nu (House Kappa), Upsilon Pi Epsilon, Tau Beta Pi, Alpha Lambda Delta, and Phi Eta Sigma Academic and Engineering Honors Societies (By Invitation)
- Board Member, Bruin Entrepreneurs (2.74% Acceptance Rate)
- First Place of Elite International Music Competition (performed solo at Carnegie Hall); Level 10/Advanced Certificate of Merit Examinations in Piano, recognized at MTAC State Convention