

Anisha Palaparthi

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Stanford University - MS, Computer Science (AI) (GPA: 3.99)

September 2024 – June 2026

University of Southern California - BS, Computer Engineering and Computer Science (GPA: 4.0)

August 2021 – May 2024

Work Experience

Co-Founder, Founding Engineer – Eka Technologies, LLC

2024 - Present

- Founded a startup providing end-to-end digital out-of-home advertising solution; now launched in retailers across 9 cities
- Built and deployed full stack of backend server (Node/MongoDB), iOS/Android frontend app (React Native/TypeScript), and features for commercialization/security (Firebase Auth, Stripe Payments, AWS SNS notifications)
- Bootstrapped development/launch, spearheaded sales to reach 7000+ daily viewers, 35+ advertisers across Bay Area in <1 year
- DevOps – Set up AWS cloud hosting infrastructure using EC2, load balancing, WAF, database replication/backup, Docker ECS containers, API gateway; Interface with MQTT IoT solution for rapid content deployment

Head Graduate Teaching Assistant – Stanford: CS 161 Design and Analysis of Algorithms

Fall 2025

- Lead a team of 16 graduate instructors to manage content development and course coordination for a class of 400+ students
- Responsible for ensuring students receive timely and consistent support from course staff by overseeing weekly sections, exam review sessions, office hours, and discussion forums as well as rigorous homework/exam quality testing before release

Independent Study – Dr. Erica Plambeck's Research Group at Stanford Graduate School of Business

Fall 2025

- Working with Dr. Erica Plambeck to extract insights from data to build an economic/policy model for two environmental issues - lead pollution in Bangladesh from battery smelting and sequestration of sulfuryl fluoride emissions from termite fumigations
- Utilizing VLMs, segmentation models, and image processing/CV techniques to identify lead smelting/fumigation activity

Graduate Teaching Assistant – Stanford: CS 103 Mathematical Foundations of Computing

Winter 2025 – Spring 2025

- Led biweekly office hours to provide students with support on homework assignments, provide supplemental review of lecture topics, and work through practice problems; held review sessions to reinforce course concepts and prepare students for exams

Research Assistant – [USC ICAROS Lab](#), [USC RESL Lab](#)

Summer 2022 – Spring 2024

- Contributed to projects on enabling policy generation for robot tasks in Dr. Stefanos Nikolaidis's Interactive and Collaborative Autonomous Robotics Lab, increasing RL policy robustness in Dr. Gaurav Sukhatme's Robotic Embedded Systems Lab
- Designed novel CS algorithms to achieve state-of-the-art performance in challenging Quality Diversity domains, leveraging Generative Flow and Classification AI/ML models for statistical analysis; Integrated Deep RL with evolutionary algorithms to build generalizable methods for robotics learning objectives and achieve high performance across dynamic environments
- Publication: "Density Descent for Diversity Optimization" accepted to GECCO 2024: <https://doi.org/10.1145/3638529.365400>

Head Undergraduate TA – USC: CS 170 Discrete Methods, CS 270: Algorithms

Spring 2023 - Spring 2024

- Led a team of 40+ student instructors to organize office hours, HW collaboration sessions, and content development to support a 370+ student class with Dr. Aaron Cote. Mentored novice TAs on teaching challenging topics in individual/group settings
- Conducted exam review sessions with 150+ students and weekly discussions with 70+ attendees, designed mini-lectures and led problem-solving sessions on complex algorithm design, runtime analysis, and rigorous proof concepts

Undergraduate TA – USC: CS 170 Discrete Methods in CS, EE 109 Embedded Systems

Spring 2022 – Fall 2022

- Taught discrete math concepts including logical equivalencies, proof techniques, combinatorics, graph theory, recursion and intro EE theory/practical applications of embedded systems in weekly lab sessions/office hours of ~30 students
- Led students through practical problem-solving, debugging complex hardware/software issues, circuit design, state machines

Intern – Genista Biosciences, Inc.

2017 – 2021

- Implemented workload distribution automation (Python), company website (HTML/CSS); set up network switches/WiFi access
- Microbiology - processed and analyzed a variety of food product and environmental samples for food safety testing

Projects

This is The Way: Vision-Based End-to-End Planning for Autonomous Driving (Waymo Open Dataset 2025)

- Designed ML architecture utilizing vision transformers, LSTMs, and LLMs to produce high-performing vehicle trajectories and demonstrated potential for improving performance with more data/compute

Center of Attention: Investigating the Effect of Alternate Attention Mechanisms on Efficiency and Model Utility

- Investigated various attention mechanisms on Sentiment Analysis, Paraphrase Detection, and Sonnet Generation NLP tasks

Application of ML Techniques to Predict Wildfire Risk Using Satellite Imagery

- Designed ML pipeline involving clustering and dimensionality reduction to classify images under low-compute regimes

Accelerating Classification Models on GPUs with CUDA (From Scratch)

- Implemented linear regression, SVM, and MLP entirely from scratch in C++/CUDA for binary/MNIST multiclass classification

EE Projects: *Plants Vs. Zombies* – implemented entirely on FPGA; *Amadeus* – RPi/MQTT/Signal Proc. to translate audio into piano notes

Skills

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| • Java, C/C++, Python, SQL, JavaScript, HTML, CSS, Verilog, Numpy, PyTorch, Jupyter, OpenAI Gym, JAX, Scikit-learn, Matplotlib, LaTeX | • Full-Stack Development – MongoDB, Express, React, Node.js, SpringBoot, Firebase, SQL, Stripe, SNS, Typescript | • FPGA, MOS VLSI (Cadence), RPi |
| • DevOps: AWS, GCP, Azure | • AI/ML, Deep Learning, RL, Computer Vision, NLP, Gen. AI, LLMs, Robotics | • Parallel computing, CUDA, GPU |
| | | • Windows, Linux, iOS/Android |
| | | • Languages: Spanish, Hindi, Telugu |
| | | • Technical Presentation, Writing |

Related Coursework

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| • ML, Deep Learning for NLP, CV | • Modern Internet, Networking, Security | • IoT, Parallel/Distributed Comp. |
| • Robot Autonomy, Robot Perception | • Computer Systems Organization, OS | • SW Engineering, Product Mgmt |
| • Decision Making, Big Data Systems | • Algorithms, Adv. Data Structures | • Digital Circuits, VLSI, Embedded |

Awards/Achievements

- Computer Engineering/Computer Science Outstanding Academic Achievement Award – awarded to 1 top student in c/o '24
- USC Presidential Scholar, Viterbi Dean's List '21-'24, National Merit Scholar, Alpha Lambda Delta, Phi Kappa Phi, Tau Beta Pi