

Sanskar Thapa

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Education

California State University of Los Angeles

Master of Science in Computer Science

Expected June 2026

GPA: 3.79 (Dean's List)

Skills

Languages: Python, TypeScript, C#, Java, Swift, C++, Go, SQL

Technologies: Linux, Docker, YOLOV5, Github, Gmail API, Outlook API, OpenAI API, Leaflet, Whisper, Elasticsearch

Frameworks and Libraries: React Native, Executorch, React.js, Vue.js, Express.js, Fast API, PyTorch, Tailwind CSS

Professional Experience

AI Developer, Aery – Los Angeles, CA

Jan 2025 – Present

- Integrated Executorch backend runtime to boost AI Inference performance by a factor of 3 for AI email prioritization, categorization, and auto reply features
- Improved AI Auto-replies and email swiping through user testing and feedback from 50 early adopters
- Reduced API call volume by 67% by implementing batch processes for Gmail and Outlook APIs, enabling smoother UX
- Enhanced app security by implementing OAuth 2.0 with JWT-based authentication and encrypting session tokens in on-device key stores, ensuring secure user login and session management

Software Engineer Intern, Northrop Grumman – Rome, NY

June 2024 – August 2024

- Utilized Phi-3 Medium, Elasticsearch, and Retrieval Augmented Generation (RAG) to generate accurate responses from military manuals, leading to a faster and smoother user onboarding experience on military systems
- Enhanced LLM resource efficiency by 50% by applying precision reduction on weights and activations, yielding significant computational savings while maintaining model accuracy
- Enabled seamless deployment and scalability by engineering and optimizing Docker containers on Red Hat Enterprise Linux 8, ensuring robust production readiness for the development team

Project Lead, The Aerospace Corporation – Los Angeles, CA

August 2024 – Present

- Led a team of 10 students to develop a Vue.js web app, visualizing global satellite coverage on a world map using Leaflet to identify active and dead satellite zones globally
- Developed a Express.js REST API that periodically fetched data from a government website and ingested it into InfluxDB for real-time updates, allowing for users to view accurate satellite visualizations
- Implemented a dynamic Vue.js date-time picker to query, visualizing satellite coverage for any selected time window

Computer Science Teacher, Everest IT – Los Angeles, CA

June 2022 – Present

- Enhanced coding proficiency for 100+ students by delivering interactive, project-based lessons in OOP
- Doubled grading efficiency by developing and integrating automated unit tests to assess student assignments

Projects

Vision Impairment Assistance Web App

github.com/jasonly027/Sight

- Developed a React web app that helps the visually impaired to learn about their surroundings using YOLOV5 object detection as ground truth, voice interaction with Whisper, and image classification using OpenAI API
- Integrated phone haptic feedback to alert users upon object detection, improving accessibility and non-visual interaction for visually impaired users

Executorch Library (Meta, PyTorch)

github.com/pytorch/executorch/pull/8522

- Enhanced project portability by converting absolute CMake paths to relative ones, simplifying build setup across environments, allowing for new contributors to run the React Native iOS demo previously broken

GPT-2 AI User Imitation

github.com/sskarz/GPT-2-AI-User-Imitation

- Fine-tuned a 124M-parameter GPT-2 model on a personal text message dataset to accurately replicate individual texting behaviors, enhancing personalized AI interactions