Sanskar Thapa

US Citizen | Los Angeles, CA| sanskar1016pro@outlook.com | sanskarfolio.com | github.com/sskarz

Education

California State University of Los Angeles	GPA: 3.8/4.0 (Dean's List)
Master of Science in Computer Science	Expected May 2026
Bachelor of Science in Computer Science	Completed May 2025

Skills

Languages: Python, TypeScript, JavaScript, C#, Java, Swift, C++, Go, SQL
Technologies: MySQL, Linux, Docker, YOLOV5, Github, OpenAI API, Leaflet, Whisper, Elasticsearch
Frameworks and Libraries: React Native, Executorch, React, Vue.js, Express.js, PyTorch, Tailwind CSS,

Experience

Founder, Aery – Los Angeles, CA   Jan 2025 – Present
- Created Aery, a cross-platform React Native email client that surfaces messages in a swipe-card UI and runs on-device LLMs for summarization, prioritization, and smart-reply; shipped to 100+ TestFlight and Google Play Store alpha users
- Embedded Executorch runtime to boost AI inference performance by a factor of 3 for AI email prioritization, categorization, and auto reply features on mobile devices
- 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
- Generated accurate AI responses from military manuals which led to a faster and smoother user onboarding experience on military systems, utilizing Retrieval Augmented Generation (RAG), Phi-3 Medium, and Elasticsearch
- Enhanced LLM resource efficiency by 50% by applying precision reduction on weights and activations (quantization), 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 servers, ensuring robust production readiness for the development team

Project Lead, The Aerospace Corporation – Los Angeles, CA   August 2024 – May 2025
- 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 MySQL for real-time updates, allowing for users to view up-to-date and accurate satellite visualizations

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

Sight: Vision Impairment Assistance Web App   github.com/jasonly027/Sight
- Developed a React web app that helps the visually impaired learn about their surroundings using YOLOV5 object detection as ground truth, voice interaction via Whisper, and image classification with OpenAI API
- Integrated phone haptic feedback to alert users upon object detection, improving accessibility and broadened interaction interfaced for the visually impaired

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