KAVYA SHARMA

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Education

University of Southern California — Jan 2025 – Dec 2026
Masters of Science in Computer Science — *Los Angeles, California*

Navrachana University — Jul 2020 – May 2024
Bachelors of Technology in Computer Science — *Vadodara, Gujarat*

Experience

Stealth Start-Up — June 2024 – Present
Founding Team Member — *Remote*
- Engineered a **semantic search** and **ML-based profile matching system** to deliver intelligent recommendations, boosting user-result relevance by over **40%.**
- Led end-to-end technical execution across machine learning pipelines, scalable backend, and web architecture, while driving sprint planning and roadmap delivery in a fast-paced startup.
- **Built automated data pipelines** via web scraping to collect and maintain a high-quality dataset of **100K+ records** for model training, evaluation, and continuous improvement.

Heuristic Pharma Perceptions — Jan 2024 – May 2024
Technology Support Associate — *Vadodara, Gujarat*
- Drove strategic insights by analyzing **5+ digital health platforms** and developing detailed user personas, informing product roadmap and prioritization.
- Designed **10+ interactive Figma wireframes** streamlining usability testing and reducing UI/UX iteration cycles by **30%,** leading to faster and more effective product validation.

Projects

CamBot: The Landmark Explainer | *Python, scikit-learn, Flask, HTML/CSS, Agentic AI agents* — July 2025
- Created an interactive visual tutor using **Agentic AI agents** and **Retrieval-Augmented Generation (RAG)** to explain landmarks from **40,000** curated images in the Google Landmarks Dataset v2
- Fine-tuned **CNN and transformer models** for landmark classification and retrieval, enabling dynamic, context-aware visual explanations through intelligent agents
- Integrated end-to-end pipelines for training, retrieval, and inference, achieving **80% accuracy** on diverse real-world images

Book Review Sentiment Analysis | *Python, PyTorch, Hugging Face, Flask, BeautifulSoup* — May 2025 - June 2025
- Developed a **full-stack Flask** web app to classify Goodreads book reviews as Positive, Negative, or Neutral using **ELECTRA, BiLSTM, BERT and traditional ML models**
- Scraped and processed **1,200+** reviews using **BeautifulSoup**; generated weak labels (TextBlob, VADER, Hugging face), validated with **200+** manually labeled samples.
- **Engineered end-to-end NLP pipelines** for preprocessing, class balancing, and model tuning, achieving **85% validation accuracy** using **ELECTRA** with dropout, early stopping, and learning rate optimization.

AI Based Website Generator | *Python, Flask, GPT DaVinci, DALL.E* — May 2024
- Deployed an AI-driven website generator that reduced manual web development time **by 70%**, by converting user text prompts into complete, editable websites using **GPT-DaVinci, DALL·E and Flask.**
- Created **15+** interactive templates and integrated a **chatbot** for 24/7 user assistance, enabling over **100 user tests** with real-time editing and customization using HTML/CSS/JS and Flask.

Technical Skills

Languages: Python, C, HTML/CSS, JavaScript, React.js, Node.js, SQL
Frameworks & Libraries: Flask, scikit-learn, TensorFlow, Keras, HuggingFace Transformers, Pandas, NumPy, NLTK, BeautifulSoup, React, Tailwind CSS
Developer Tools: VS Code, Google Colab, Android Studio, GitHub, Figma, Postman , Vite, Unity
Databases APIs: SQLite, Flask APIs, REST APIs

Leadership / Extracurricular

AthenaHacks Mentor: Mentored participants in building ML-powered web apps using Flask and APIs during a 36-hour hackathon.

Joint Educational Project (JEP) TA: Taught Python basics to 5th-grade students weekly, promoting early STEM exposure through USC's community outreach