Mudit Arora

San Francisco Bay Area | +1 (602) 545-7387 | muditarora31@gmail.com | aroramudit | Mudit-Arora | Portfolio

EDUCATION

Master of Science, Artificial Intelligence — Expected Graduation: Dec 2025
University of California, Santa Cruz — Santa Cruz, CA
- **Courses**: Deep Learning for NLP, Data Science & Machine Learning, Intro to NLP, AI Agents — GPA: 3.80

Bachelor of Science, Computer Science — May 2024
Arizona State University — Tempe, AZ
- **Awards/Honors:** Magna Cum Laude, Dean's List, New American University Scholar, SUN Award — GPA: 3.77
- **Courses**: Artificial Intelligence, Data Structures & Algorithms, Software Engineering, Computational Biology

SKILLS

Programming Languages: Python, R Programming, C++, MATLAB, Java, JavaScript, TypeScript, Swift, MySQL
Frameworks/Libraries: PyTorch, TensorFlow, scikit-learn, Keras, NLTK, Pandas, NumPy, LangChain, AutoGen, matplotlib, OpenCV, HTML/CSS, React, Next.js, Node.js
Tools: GCP, Azure, Git, Docker, AWS (S3), Postman, Ollama, Make.com
Domain: Artificial Intelligence, Machine Learning, Deep Learning, Data Science, NLP, LLM, RAG, GenAI, AI Agents, Computer Vision
Certifications: Technical Interview Prep (CodePath), Web Development (CodePath)

WORK EXPERIENCE

Deep Learning Researcher — May 2025 – Present
Uniphore — Palo Alto, CA
- Advancing a flexible dialog capable of multi-turn reasoning and dynamic tool use by generating **5000+ synthetic conversations** and fine-tuning various LLMs with frameworks like ReAct, ReSpAct, and Pre-Act, targeting a **35% improvement in task success rates** for enterprise dialog systems.

AI Software Engineer Intern — May 2025 – Sept 2025
CRED — San Francisco, CA
- Worked on internal automation tools to help PMs in taking notes, reviewing transcripts, identifying key problems, solutions, and improvements **saving upto 2hrs.**
- Designed an AI bug fixing agent for writing fixes, Q&A, and reviewing the bugs helping the developers **saving upto 4hrs**.
- Crafted features for CRED's Chrome Extension utilizing LLMs for intelligent preprocessing and semantic chunking to scrape web page data , **achieving 84% accuracy** in the benchmark test, and optimized the process to retrieve real-time data to users efficiently.
- Optimized CRED's AI Slack Bot for better workflow, **reducing the wait time by 15%** by using OCR models.

Graduate Teaching Assistant — Apr 2025 – June 2025
Baskin School of Engineering, UC Santa Cruz — Santa Cruz, CA
- Facilitated learning for **240+ undergrad students** in Computational Methods course under Prof. Daniel Fremont, boosting student comprehension by **20%**, through tailored office hours and interactive problem-solving sessions.

Machine Learning Researcher — Aug 2023 – May 2024
Mayo Clinic — Tempe, AZ
- Fine-tuned **Google's T5**-based LLM using **Python**, **PyTorch**, and **scikit-learn**, achieving **87% accuracy** in extracting social determinants of health from clinical notes and predicting patient readmission within 30 days.
- Assisted hospitals in **reducing admission rates**, leading to **cost savings** in patient care management and improved clinical decisions.

Software Quality Assurance Intern — May 2022 – Aug 2022
Knight Transportation — Phoenix, AZ
- Innovatively constructed an agile approach, authoring detailed test cases and effectively resolving critical bugs via **Microsoft Azure DevOps** and **Elasticsearch**; optimized development processes, resulting in a **28% reduction in bug resolution** time.
- Orchestrated a collaborative effort with Backend Engineers to optimize User Experience, resulting in a **42% increase in app engagement** and a **23% decrease in user complaints**.

PROJECTS

Slug Meditate – CruzHacks 2025 Winner
- Built a VR meditation web app pipeline, utilizing **Google's Gemini API** to transform user text prompts into AI generated image (**Imagen 3**) and video (**Veo 2**) that then transforms it into a 3D scene mapping (**Gaussian Platting**), then add an AI generated music (**MusicFX**) that compliments the meditative vibe, and finally rendering the VR immersion (**Niantic Studio by 8th Wall**).
- Achieved a **success rate of 87%** in rendering immersive by processing over **14 unique** user prompts.

Multi-Lingual Emotion Detection System – SemEval 2025
- Architected both **LSTM and BiLSTM models** using **PyTorch** for single and cross-language scenarios, achieving **F1 scores of 0.35 and 0.33** respectively by language-aware attention mechanism, **FastText embeddings**, and extensive data preprocessing techniques.

EduMUSE
- Developed an AI-powered tutoring system using **CrewAI** multi-agent architecture that transforms PDF study materials into personalized learning experiences with automated summaries, quiz generation, and podcast-style audio content using GPT-4o, SerperDev, and ElevenLabs, reducing study material **processing time by 68%.**