Chetan Aditya Lakka

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Profile

A results-driven AI and Machine Learning professional with hands-on experience in large language model (LLM) training, multimodal AI, and robotic perception systems. Skilled in leveraging data-driven optimization, deep learning, and computer vision to enhance model reasoning, spatial understanding, and behavioral prediction across real-world scenarios. Passionate about developing scalable, intelligent systems that bridge the gap between human cognition and machine intelligence through innovative research and applied engineering.

Technical Summary

Skilled in building and deploying LLM-powered AI systems with experience across multimodal learning, model evaluation, and intelligent automation. Proficient in designing end-to-end machine learning pipelines, integrating frameworks like PyTorch, TensorFlow, Hugging Face, and LangChain to create scalable, production-ready AI solutions. Familiar with reinforcement learning and robotics data workflows, with practical exposure to model debugging, prompt engineering, and real-world AI reliability improvement.

Professional

Turing, *LLM Trainer* (*Contract, Remote*) Sep 2025 – Present | Palo Alto, CA

I analyzed robotic task executions to help improve AI model reasoning and reliability. This involved identifying incorrect actions, failures, and task inefficiencies, and providing structured annotations that supported model debugging and training. I collaborated with AI teams by refining data quality and using internal tools (and basic Python workflows) to ensure consistent, usable inputs for AI model improvement.

Google, *AI-ML Virtual Intern* Apr 2024 – Jun 2024

The Google AI ML Internship offers hands-on experience with cutting-edge technologies, mentorship from industry leaders, and a collaborative environment, fostering growth and innovation for aspiring machine learning professionals.

AWS, *AI-ML Virtual Intern* Sep 2023 – Nov 2023

As an AI/ML Virtual Intern, I work on cutting-edge machine learning projects, helping develop intelligent algorithms and models to solve complex problems and gain hands-on experience in the world of artificial intelligence.

Skills

Machine Learning & AI: Supervised / Unsupervised Learning · Deep Learning · Large Language Models (LLMs) · Multimodal AI · Reinforcement Learning · Computer Vision · NLP · Model Evaluation & Optimization · Human–AI Interaction

AI Application & Deployment / LLM & Agentic Systems: LLM Agents · LangChain · OpenAI API · Prompt Engineering · Code Automation · AI-driven Development Tools · FastAPI · RESTful AI Services · Model Deployment

Programming & Frameworks: Python · TensorFlow · PyTorch · Keras · NumPy · Pandas · Scikit-learn · OpenCV · Hugging Face · LangChain · PyTorch Lightning

Data Engineering & Tools: Data Preprocessing · Feature Engineering · Data Visualization · SQL · JSON · Git · Jupyter · Colab · API Integration · RESTful Services

Software Development & Web: HTML · CSS · JavaScript · ReactJS · Node.js (MERN Stack – Familiar) · Flask · Cloud Deployment (AWS, GCP)

Research & Analytics: Explainable AI (XAI) · Model Interpretability · Statistical Analysis · Experiment Design · Prompt Engineering · Technical Documentation

Soft Skills: Analytical Thinking · Cross-Functional Collaboration · Technical Communication · Agile Development · Problem Solving · Rapid Prototyping

Education

B.Tech - Electronics and Computer Engineering, 2021 – 2025
Sreenidhi Institute Of Science And Technology

Research

CereBro: A Cloud-Integrated Android Application for Cognitive Disorder Screening, *NCNTAIA Conference*
CereBro is a mobile app for early screening of autism, dyslexia, and dementia, combining on-device ML with cloud updates for accessible, offline, and real-time assessments through questionnaires, text analysis, and cognitive games.

Reverse Attribution: Explaining Model Failures via Counter-Evidence, *NCNTAIA Conference*
Developed a Python-based framework to debug machine learning models by identifying features that suppress correct predictions. Built automated attribution pipelines using SHAP, Integrated Gradients, and PyTorch. Designed metrics like Attribution-Flip (A-Flip) to quantify instability in model decisions — enabling failure diagnosis similar to how AI agents analyze and correct system behavior. Implemented reproducible code, visual dashboards, and streamlined workflows for integration into real-world ML debugging pipelines.

Projects

Reverse Attribution, *Machine Learning*
Created a model-agnostic debugging framework that identifies features suppressing correct predictions in ML models. Implemented Python pipelines for attribution analysis using PyTorch, SHAP, and Integrated Gradients. Automated failure analysis and report generation using LLMs to summarize model errors and surface counter-evidence. This aligns with AI agent workflows — diagnosing model issues, surfacing misclassifications, and improving system reliability through experimentation. This framework can be extended into AI agents that automatically flag failing model behaviors and assist developers in debugging pipelines

Autism Detection, *Machine Learning*
Developed a machine learning model to predict autism spectrum disorder (ASD) in children based on behavioral and genetic data for early intervention and support.

Crop Detection, *Deep Learning*
Implementing deep learning models to accurately identify crop diseases from images, aiding farmers in timely disease management and enhancing agricultural productivity and sustainability.

CereBro, *Android Application*
Developed an AI-enabled mobile application for early screening of Autism, Dyslexia, and Dementia. Integrated LLM-based modules using Python and LangChain to analyze patient responses, automate text interpretation, and generate personalized feedback, reducing manual rule-writing. Combined on-device ML with cloud-based updates to enable offline assessments and scalable deployment.

Essay Grading, *Machine Learning*
Built an AI-based essay grading system that evaluates coherence, grammar, structure, and relevance. Integrated LLMs to automate feedback generation, enhance scoring consistency, and suggest corrections using prompt-engineering workflows. Optimized Python pipelines for preprocessing and scalable inference using FastAPI.

Portfolio, *ReactJS*
A personal portfolio site chetanaditya.tech

Organizations

The Techvision Club, *Designing Head* 2022 – 2024
I create engaging content for events and workshops, promoting technology and innovation as Designing Head

Ramakrishna Math, *Volunteer* 2021 – 2023
Involves selfless service, spiritual growth, and community engagement, fostering inner peace and harmony.

Certifications

Artificial Intelligence: Knowledge Representation And Reasoning, *NPTEL*
This course delves into representation formalisms and reasoning algorithms, progressing from propositions to first-order logic and beyond, with real-world problem-solving applications.

Interests

- Following tech and business news
- Video Editing
- Poster Making