

# DIVJOT SINGH MANCHANDA

AI Engineer — Builder of Agentic Systems — FinTech & Cognitive AI Researcher

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## EXPERIENCE

### IIT Madras, CAMS IIT-M Fintech Innovation Lab

Research Intern

Chennai, Tamil Nadu

June 2024 – August 2024

- Performed feasibility analysis to explore the integration of AI in financial modeling and fintech solutions.
- Fine-tuned a RAG-based LLM on financial data with web search capabilities.

### Renault Nissan

Technical Intern

Chennai, Tamil Nadu

September 2024 – November 2024

- Developed an algorithm to evaluate past part vendors based on pricing, lead time, MOQ, quality, defect rates and other variables, enabling data-driven reordering decisions and **reducing decision-making time by 60%**.
- Designed a chatbot to simplify access to the vendor analysis data using structured outputs, improving decision-making efficiency.

### FlowNow

Technical Intern

Berkeley, California

March 2025 – June 2025

- Built an **agentic AI system** creating context-aware questions from user-submitted books to assess their reading comprehension.
- Built an AI model to track user attention span using behavioral metrics, providing real-time insights and measuring the effectiveness of FlowNow's **neuroscience-based**, gamified training system.
- Integrated a **Tawk.to**-powered automated support agent to enhance onboarding and improve user engagement.

## EDUCATION

### SRM Institute of Science and Technology, Kattankulathur, Tamil Nadu

Bachelor of Technology in **Artificial Intelligence**

Enrolled: September 2022 — Expected: June 2026

**CGPA: 8.54/10**

Relevant Coursework: Neural Networks and Machine Learning, Deep Learning Techniques, Design in Artificial Intelligence Products, Inferential Statistics and Predictive Analytics, Advanced Calculus, Image and Video Processing, Reinforcement Learning.

### University of California, Berkeley, Berkeley, California

Semester Abroad Program – SCET Startup Semester

January 2025 – May 2025

**GPA: 4.0/4.0**

Courses: Deep Learning for Visual Data, Future of Technology (*Designing Next-Generation Technologies*), Amazoogole (*AI and the Modern Data-Driven Business Model*), Challenge Lab (*Designing Startups to Transform Society*), A. Richard Newton Lecture Series.

## PROJECTS

### Youtrition

Project Link: <https://github.com/djsmanchanda/Youtrition>

UC Berkeley, California

March 2025 – May 2025

- Developed a personalized AI nutrition assistant analyzing users' diet patterns and fridge contents to recommend balanced meals.
- Integrated the Gemini API for visual food recognition and structured parsing to classify items as fresh, spoiled, or old.
- Designed an intuitive Next.js dashboard with automated image-based inventory updates and adaptive nutritional insights.
- Created as part of the SCET Startup Semester at UC Berkeley, it combines AI, entrepreneurship, and product design.

### Reflection (Llama Stack Hackathon)

Project Link: <https://github.com/djsmanchanda/Reflection>

Berkeley, California

May 2025 – June 2025

- Built an agentic AI assistant parsing emails, calendars, and chats to autonomously manage tasks and communication.
- Integrated Qdrant with Gemini embeddings to store contextual memory and support adaptive reasoning.
- Learned user priorities and typing style from past emails to personalize scheduling and email drafting.
- Generated email drafts that users can edit or reprompt before sending, ensuring control and accuracy in communication.

### Vogue Fusion (PULSE Hackathon)

Project Link: [https://github.com/djsmanchanda/VogueFusion\\_Pulse](https://github.com/djsmanchanda/VogueFusion_Pulse)

IIT Bombay

November 2024 – December 2024

- Secured **2nd place** out of 500 teams at the PULSE Hackathon, IIT Bombay, winning INR 1L in prize money.
- Developed an algorithm using the Pinscape API for seasonal trend analysis in fast-fashion lines for the Aditya Birla Group.
- Built ComfyUI workflows leveraging SDXL and custom LoRAs to automate design processes and reduce time-to-market.
- Designed a custom genetic algorithm to generate reproducible dye mixtures and predict printing costs within **7% MOE**.

### MirrorBot

Project Link: <https://github.com/djsmanchanda/MirrorBot>

Intel Unnati AI Labs

August 2024 – December 2024

- Implemented data preprocessing of users' past Instagram and WhatsApp chat histories to ensure relevant content extraction.
- Fine-tuned LLaMA 3.2 (3B) on the curated dataset to replicate the creator's messaging style and natural conversational flow.
- Conducted as part of the Intel Unnati Generative AI Industrial Training – 2024.

## SKILLS

- Programming Languages:** Python, C, C++, CUDA, PowerShell, Bash
- Frameworks & Libraries:** PyTorch, TensorFlow, Keras, Hugging Face, LangChain, Flask, Streamlit, React, Next.js, ComfyUI
- Tools and Platforms:** Git, Weights and Biases, Docker, AWS EC2, AWS S3, AWS Lambda

ACHIEVEMENTS

- Won 6 hackathons and competitions with cumulative cash prizes exceeding **INR 2,00,000 and USD 1,000.**
- **1st place** – HackStreet 2.0, SRM, Chennai March 2024
  - **2nd place** – Llama Stack Challenge, UC Berkeley, California April 2025
  - **2nd place** – PULSE Hackathon, Techfest IIT Bombay December 2024
  - **2nd place** – Innofusion'24, SRM, Chennai February 2024
  - **3rd place** – Google Cloud Hacknight, San Francisco May 2025
  - **3rd place** – Synapses 2.0, National Level Hackathon, PES University, Bangalore May 2024

- Line Follower Competitions:**
- Built a high-speed, high-precision line follower robot through a custom PCB and a new PID control algorithm.
  - Ranked **1st place** at BITS Pilani, **2nd place** at Anna University, and **3rd place** at Kongu Engineering College, Erode.

VOLUNTEERING - Student Clubs

**Data Science Community**

*Machine Learning / Research Supervisor*

Chennai, Tamil Nadu

September 2022 – December 2024

- Gained hands-on experience in advanced AI, ML, DL, and data science through multiple cross-domain projects.
- Collaborated with students from diverse backgrounds to develop cutting-edge AI solutions, including a rhythm generator.

**SRM Team Robocon**

*System Integration and Electronics Subsystem Engineer*

Chennai, Tamil Nadu

September 2022 – September 2023

- Accumulated over **1,000 hours** of on-site experience in electronics, control systems, and embedded coding.
- Designed and integrated multifunctional robots for international competitions like ABU Robocon, covering ideation, development, testing, and deployment.

**CINTEL's Next Gen AI**

*Domain Head, Robotics and Generative AI*

Chennai, Tamil Nadu

January 2023 – September 2024

- Mentored and led a team of 25 students to build robots integrating AI and computer vision capabilities.
- Organized a large multi-domain hackathon attended by over **1,000 students.**