

Vivek Dutta

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TECHNICAL SKILLS

Languages/Frameworks: Python, JavaScript, TypeScript, C++, Shell, Django, Flask, Node.js, React, Vue, Angular
Tools/Practices: Jest, PyTest, Git, Docker, Kubernetes, RESTful API, OpenAPI, GraphQL, Figma, Agile (Scrum), Jira
Databases/Cloud: PostgreSQL, NumPy, MongoDB, Redis, AWS (EC2, S3, Glue, Lambda), Google Cloud (GCP)
Machine Learning: Apache Spark, PyTorch, NVIDIA CUDA, Hugging Face Transformers (LLM fine-tuning)

EDUCATION

University of California, Berkeley Aug. 2019 – May 2023
Bachelor of Science in Electrical Engineering and Computer Science (EECS)

EXPERIENCE

DeepLeap May 2023 – present
Founder, Lead Developer deepleap.io

- Led development of a virtual environment of autonomous AI agents, modeling human-like interactions at scale.
- Trained custom LLMs (Hugging Face, CUDA) to build out scalable, robust agent pipelines.
- Examples include YouTubeGPT and Abra AI, detailed on my website.

Visa May 2022 – Aug. 2022
Software Engineer Intern: Payments API

- Deployed robust REST APIs for the payments microservices ecosystem. Utilized AWS (EC2 + EKS) and Docker containers to ensure scalability and security for processing transaction volumes.
- Implemented continuous integration practices, implementing CI/CD pipelines (CircleCI) and automated testing frameworks (PyTest) to streamline development processes and enhance product quality.
- Collaborated with senior engineers on PRD review, enhancing test automation and quality assurance across Payments API microservices.

Amazon Web Services May 2021 – Aug. 2021
Software Engineer Intern: Prime Video

- Explored datasets of Prime Video member browsing preferences, analyzing scroll behavior and bounce rates. Collaborated with model training team to refine AI/ML Recommendation System (Apache Spark, scikit-learn, AWS SageMaker).
- Leveraged insights for personalized content recommendations. Over 10 weeks, collectively saw 8% increased watch-time (controlled A/B testing) and 15% reduced data processing time.

Scorpx May 2021 – Present
Founder, Owner scorpx.shop

- I digitally design, manufacture, and sell my own line of custom soccer jerseys (30K+ followers, 5K+ customers, 89 countries). Monthly run rate of 150 units with a 4.5+ /5 store review rating.

PROJECTS

Abra AI | *DeepSpeech, spaCy, OpenCV, FFMPEG, MongoDB, Next.js, AWS Lambda* abra-ai.vercel.app

- Developed full-stack web app where an AI avatar conducts real-time video mock interviews on 30+ company question banks: leverages DeepSpeech (speech recognition) + spaCy (NLP on verbal responses) + OpenCV (computer vision to analyze facial cues).
- Utilized GPT-4 (real-time data-driven feedback) + FFMPEG (encoding/decoding video pipeline) + WebSockets (low-latency streaming). AWS Lambda functions powering the backend.
- 400+ interviews conducted on site to date.

Morphs | *Hugging Face Transformers, Django, Pinecone, Redis, Socket.IO, SolidJS, AWS EKS, RunPod* morphs.ai

- Developed web/mobile platform where 1.5K monthly users create, share, and use 100+ custom AI chatbots.
- Fine-tuned Mistral LLM (Hugging Face Transformers) on Reddit/Instagram social media datasets to power the chatbots' "personality". Used Pinecone vector database (long-term memory/knowledge base).
- Utilized Redis (message cache) + WebSockets (real-time chat). Inference powered by RunPod (cloud GPU).