Jatin Parab

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Professional Experience

Senior Software Engineer | Codecademy   Nov 2023 – Present
- Established the foundational AI/LLM infrastructure and engineering best practices for Codecademy's generative AI capabilities from the ground up, including LangChain/LangGraph integration, agent architecture patterns, tool use, and model integration guidelines adopted across teams.
- Drove development of **AI Builder,** a first-of-its-kind agentic coding tool that integrates active learning experiences alongside building. Owned the learning content generation pipeline through learning loops, including multi-provider LLM support, achieving **93% user satisfaction**. (Release Blog)
- Built end-to-end the **AI Learning Assistant** (Behind the scenes, Press Release), a Socratic in-platform tutor with full course context, upgrading it to a graph-based agentic framework using LangGraph and integrating VectorDB for context retrieval, achieving **86% positive feedback**.
- Architected and drove development of **AI Custom Projects** as tech lead across a 4-engineer team; a multi-step agentic pipeline that scaffolds personalised projects based on a learner's chosen technologies and interests, achieving **91% user satisfaction**.
- Designed and implemented a distributed job queue system (BullMQ + Redis) for long-running agentic workloads; authored RFC approved by staff engineers, later adopted across multiple services.
- Built an LLM evaluation framework for assessing model quality and driving model upgrade decisions. Framework was adopted by other teams for their own LLM-backed features.

Founding Software Engineer | Upraised   Sep 2019 – Oct 2023
- Designed and implemented a **high-capacity queue-based backend** for an examination system supporting **500k+ concurrent users**.
- Led full-stack development of multiple core iterations of the Learning Management System.
- Pioneered **LLM adoption** through an evaluation framework and a LangChain-based scoring algorithm for subjective tests, significantly reducing manual review needs.
- Engineered CI/CD pipelines for microservices using GitHub Actions, Docker, and Kubernetes; developed a **Golang CLI tool** to automate routine engineering tasks.

Projects

homectl - Homelab Infrastructure Control Plane (Go, Docker, React)
- Built a distributed manager-agent control plane for orchestrating Docker services on multiple nodes.
- Designed a fault-tolerant agent runtime with independent heartbeat, reconciliation goroutines enabling health monitoring, automatic crash recovery, and container quarantine after repeated failures.

Languages and Technologies

- Go, Javascript (Typescript), Python.
- LLM Inference, LangGraph, Langchain, Django, React, Redux, Express, PostgreSQL, MongoDB, Docker, Kubernetes, Kafka, AWS.

Education

Bachelor of Engineering (Computer Science)
Mumbai University, 2020 | *GPA*: 7.93