# Pawan Bhandarkar

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Carnegie Mellon University

Mountain View, CA

Dec 2023

Master's in Software Engineering

Affiliations: Graduate Teaching Assistant, Research Associate

Visvesvaraya Technological University

Nitte, India Apr 2020

Bachelor's in Computer Science and Engineering Affiliations: Sakura Science Fellow

Experience

Education

Converge Lab

Sunnyvale, CA

Jan 2024 - Present

Founding Engineer Rapidly built, launched and iterated on an LLM-powered hardware co-designer that allows Field Application Engineers to find, compare, and evaluate electronic components using natural-language

- Designed and developed the frontend to support features like generative UI using server-sent events, "Human-in-the-loop" feedback for AI evaluation, tiered access control etc. using technologies like NextJS, React Context API, and TypeScript
- Contributed to developing a FastAPI RAG backend with tools like Pinecone and Elasticsearch for context retrieval, DynamoDB for storage, and Langchain for the agent
- Developed data extraction and parsing pipelines in Python for online processing of PDF datasheets and use in LLM contexts

TuneIn Radio Software Engineer Intern, Platform San Francisco, CA

Jun 2023 - Aug 2023

- Enhanced real-time data delivery for up to 7.5 Million monthly users via subscription-based APIs using WebSockets. Used Test-Driven Development in Golang to ensure a robust GraphQL API gateway
- Engineered high-throughput data communication pipelines, processing over 2 Million messages per day with latencies under 30ms using Apache ActiveMQ and Redis Streams on AWS ElastiCache
- Automated microservice deployment with Terraform and Kubernetes. Maintained 99.9% uptime with New Relic monitoring
- Expanded the legacy C# (.NET Core) monolith with support for live streaming metadata for over 120,000 radio stations

Team AIBOD Inc

Fukuoka City, Japan

Feb 2020 - Apr 2022

- Software Engineer • Created an accessible, mobile-first React component library, promoting a consistent design language within the company
  - Engineered an information management system for serving up to 150,000 users daily, with Python, SQL and GraphQL
  - Led the development of a payment microservice, handling 200 transactions per hour, with gRPC, Flask and PostgreSQL
  - Built and documented 30+ RESTful APIs leveraging Apiary and Postman, resulting in enhanced app functionality
  - Set up a Jenkins CI/CD pipeline that automated 100+ weekly builds, while utilizing AWS services like ECR, ECS, S3, and AWS Fargate for seamless DevOps

## Skills

Languages & Frameworks: Python, TypeScript, JavaScript, Go, React, Redux, NodeJS, GraphQL

Databases & AI: PostgreSQL, MongoDB, Supabase, LangChain, Pinecone, ElasticSearch

DevOps & Tools: Docker, AWS, Redis, gRPC, Sentry, LogRocket, Git, Jira

### **Projects**

#### Journey

• Building the future of online education as an AI-powered platform that lets students generate personalized learning journeys based on their interests, prior knowledge, and learning goals. Allows users to learn on the go by generating dynamic podcasts from blogs and long-form text-content. Try it yourself: getjourney.app

#### AgentDocs

• Built an MVP for a collaborative text editor like Google Docs where you can tag AI Agents specialising in different tasks, such as summarization, translation, and image generation. Used OpenAI's API to generate summaries of documents. This work is based on an open-source project called Novel.sh

## **Incident Response**

• Led the frontend development of a mobile-first communication platform for citizens and first responders during emergencies. Used Ant Design, Figma and Storybook for the UI, refactored the codebase and advised the team on best practices in UI development and accessibility. Deployed the app to S3 using Jenkins and CloudFront