

BHARATI KULKARNI

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SUMMARY

Second engineer at an early-stage AI startup. Comfortable across the full stack in **Python and Java**, integrating frontier LLMs, and operating with minimal scaffolding in fast-paced environments.

SKILLS

- **Languages:** Python, Java, TypeScript, JavaScript
- **Backend & Frameworks:** Flask, FastAPI, Spring Boot, Node, Django, React, Angular
- **AI & LLM Engineering:** OpenAI, Anthropic Claude, OpenAI Assistants API, RAG, LLM agents, embeddings & vector search, MCP (Model Context Protocol), Retell AI
- **Cloud & DevOps:** AWS (EC2, ECS, Lambda, S3, Amplify), Docker, Vercel, Railway, GitHub Actions, Jenkins, GCP
- **Databases & Integrations:** MongoDB, MySQL, DynamoDB, Oracle, Neo4j; Clerk, Stripe, SendGrid, Sentry
- **AI-native dev tools:** Claude Code, Cursor, Codex, V0, Lovable

EXPERIENCE

Lasso Solutions, Inc.

San Francisco, CA

Senior Founding Software Engineer

Jan 2024 - Present

- **Designed and built the core Python/Flask backend** for an [AI-powered grant-matching platform](#) serving ~10k farmers and agricultural applicants, integrating LLMs (OpenAI, Anthropic) and RAG pipelines to automate manual customer success workflows. Collaborated directly with customers through **user interviews** to inform product and system design decisions.
- **Built an agentic grant-discovery and maintenance pipeline** that scrapes federal, state, and private sources daily, using LLM agents (OpenAI Agents SDK) for extraction, classification, and normalization. Designed a recommender system backed by vector search to surface new sources and flag updates to existing grants, with an **agentic workflow enforcing business rules** before surfacing results to human reviewers — cutting grant-update detection time from 2–3 weeks to near real-time. **Owned the Dairy Management Inc. data partnership** on the engineering side: scoped the integration and extended the pipeline's structured-data schema to power the [Dairy Conservation Navigator](#).
- **Built and owned all infrastructure from scratch:** provisioned domains, load balancers, and ECS clusters on AWS, deployed containerized services across AWS ECS, EC2, and Lambda, and managed data persistence with MongoDB. Built CI/CD pipelines with GitHub Actions and hosted frontend via AWS Amplify. Established observability via Sentry, CloudWatch, and automated Slack alerting, and integrated Clerk (auth), Stripe (payments), and Redis-based rate limiting.
- **Shipped customer-facing and internal features end-to-end:** a notifications system with weekly email digests and SMS/email channels via SendGrid, admin dashboards that scaled customer success capacity per person, internal analytics dashboards powered by Mixpanel, and a standalone REAP grant eligibility tool with document upload, structured field intake, and automated application creation from structured inputs. Drove voice AI agent product discovery for a farmer-facing grant communication feature - evaluated tools and integration approaches, defined technical scope, and validated concepts through live-demo user interviews.
- Consistently proposed and shipped lightweight internal tools to unblock the team, prioritizing speed. **Proposed and built a utility bill data extractor** using the OpenAI Assistants API, accepting PDF and image inputs and outputting structured tables - reducing grant writers' manual data formatting from hours to minutes.

Credit Suisse

Pune, India

Software Developer

Aug 2019 - Jun 2022

- Developed an **analytics application** for real-time data access and commentary using Java, Spring Boot, and Angular, reducing onboarding time by 80% and enhancing cross-team engagement.
- Designed **event-driven microservices** in Java with Spring Cloud Stream and Kafka to support high-volume trade record processing at scale.
- Created and automated CI/CD pipelines with Jenkins, decreasing deployment time by 30%.

MathWorks

Natick, MA

Software Engineering Intern

May 2023 - Aug 2023

- Optimized a MATLAB code coverage script, reducing runtime from 8 hours to 2 minutes (200x speedup) through parallelization. Improved project scalability by applying Object-Oriented Programming principles and the Singleton Design Pattern.

PERSONAL PROJECTS

- **AGROW** Semi-Finalist, IBM WiT-ACE Hackathon 2021
A Support Application For Agriculture [\(GitHub, YouTube\)](#)
 - Led architecture design and development of a Python Flask and Angular web application using Open Data Gov APIs with data storage on IBM Cloudant.
 - Built a WhatsApp ChatBot using Twilio, Google DialogFlow for intent understanding, and IBM Watson for language translation to make the application accessible to non-English speaking farmers.
- **Shramik-Bal** Finalist, IBM WiT-ACE Hackathon 2020
An Employment Portal For Laborers in India [\(GitHub, YouTube\)](#)
 - Spearheaded architecture design and development of a cross-platform mobile application using Spring Boot and Ionic with data stored on IBM Cloud DB2.

OTHER

- **Open-source Contribution:** Fixed 14 flaky tests across 8 large open-source projects including Apache Camel, Google Cloud Platform, and Alibaba Nacos. Added OS-dependent test category in IDOFT.
- Helped raise \$2400 for Cochlea by mapping unexplored areas in African countries in collaboration with the Médecins Sans Frontières' Missing Maps Project.

EDUCATION

- **University of Illinois Urbana-Champaign**, MCS, Computer Science: GPA 4.0/4.0 Aug 2022 - Dec 2023
- **Savitribai Phule Pune University**, BE, Computer Engineering: GPA 9.15/10.0 Jul 2015 - Jul 2019