

Amrut Savadatti

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EDUCATION

Worcester Polytechnic Institute | USA

– Masters of Science in Computer Science

Aug 2024 – Aug 2026

University of Mumbai | India

– Bachelor of Engineering in Computer Engineering

Aug 2017 – Jun 2021

EXPERIENCE

Web Application Developer | Media.net | Java, Spring Boot, Kafka, Python, ECS, Docker

Aug 2021 – May 2024

- Designed and developed a **push-based Keyword Launcher API** using **Kafka, Java, and MongoDB** to automate keyword **due diligence** with asynchronous API calls and **compliance validation**. **Reduced** keyword processing latency by **35%** and **enabled real-time analytics for faster decision-making**.
- Designed a **centralized, configurable Data-Processor pipeline** to ingest data from APIs in various forms and ensure **consistency across API replicas** and support downstream processing. Improved **data throughput by 60%**, reduced **redundancy by 40%** enabling **ROAS tracking, cost-revenue stitching, and real-time logging** for 30+ APIs.
- Built and maintained the core **Arbitrage Plugin Backend** supporting **400+ revenue-generating websites**. Enabled dynamic configuration of **ad providers, website templates, A/B testing ratios, and user accounts**, while reliably **firing keyword click pixels** to optimize monetization across ad networks.
- Built a centralized **API Proxy Service** with **secret key handling, Dockerized deployments, and response caching** to streamline third-party API usage. Improved **availability** and cut redundant calls, yielding a **25% cost saving**.
- Built a centralized **JWT-based authentication service** and a **Role Based Access Control (RBAC)** system to secure and standardize access across **30+ internal APIs**, improving **security consistency** and reducing integration effort for new services.
- Contributed to annual **product upscaling and load testing** using **K6** and **Grafana** to handle seasonal traffic spikes. Improved system reliability by resolving bottlenecks through **ELK log analysis** and **Sentry alert triaging**.

Software Developer Intern | Bhaktivedanta Hospital | Java, Android, MsSql

Dec 2019 – Jan 2020

- Led the design and implementation of a **QR-based delivery verification system** to address inefficiencies in pharmacy logistics, ensuring secure and accurate handovers.
- Developed **Java-based Android app** for order placement and delivery tracking, backed by **MSSQL**, reducing delivery **delays by 37%** and **errors by 40%**; created HLDs using **Draw.io** to align cross-functional teams.

Software Developer | Gopalak Milk | Flutter, Dart, Next.JS, Strapi

Jul 2020 – Jun 2021

- Developed a **subscription-based milk delivery** system for a client, including a **Strapi** backend with dashboards for product management and secure payments via **Razorpay**.
- Built a **cross-platform Flutter** app cataloging all products with extensive features **increasing user retention by 25%** and **reducing manual tracking of exceptions and rejected deliveries by 57%**.

PROJECTS

Operating System Fundamentals | C, System Calls, File I/O

Mar 2025 – Apr 2025

- Developed Linux-style CLI tools (**wcat, wget, wzip**) and a custom shell (**wshell**) supporting piping, redirection, and background jobs, to gain hands-on experience with **process management** and **system calls**.
- Implemented a **CPU scheduling simulator** (FIFO, SJF, Round Robin) and a custom **dynamic memory allocator** (**goatmalloc**) using **mmap**, chunk headers, and coalescing to explore low-level memory management.
- Designed these projects to **deepen my understanding of operating systems**, applying core OS concepts like **pointer arithmetic, memory arenas, and process scheduling** through real-world C implementations.

Auction House | Next.js, TypeScript, AWS

Sep 2024 – Nov 2024

- Built a scalable auction platform using **AWS** services (S3, RDS, Lambda) following **EBC architecture** to support modular and maintainable design.
- Implemented **role-based authentication** for four user types and developed a responsive UI using **Next.js** and **Tailwind CSS**, optimizing client-side rendering for a seamless experience.
- Applied **system design principles** to ensure loosely coupled components and low tech-debt code, enhancing long-term scalability and deepening architectural proficiency.

TECHNICAL SKILLS

Languages: C++, Java, Python, Dart, PHP, JavaScript, HTML/CSS, SQL, Shell Scripting

Frameworks: REST API, Spring Boot, Django, Flask, React, Flutter, Android, Laravel, Lumen, Next.js, ChatGPT-3.5/4, Cursor IDE, Prompt Engineering, LangChain

Databases: MongoDB, MySQL, MSSQL, Firebase, Druid, Redis

DevOps/Tools: Docker, Kubernetes, AWS, Grafana, Kafka, Git, CI/CD

Fundamentals: Data Structures, System design, Object Oriented Programming

Data Formats: JSON, XML, BSON, AVRO