

Atharva Sarvesh Devasthali

Senior Full-Stack Engineer | Google Software Developer | AI & ML Enthusiast

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Full-stack software developer with **3+ years** developing **scalable consumer-facing web applications** on **Google products**. Expert in modern frontend frameworks (**React, Next.js, Angular, TypeScript**) and backend technologies (**Java, Python, Go**), with proven experience **reducing development cycles by 40%** and **improving performance by 90%**. Strong background in **AI/ML, multi-agent systems, Test-Driven Development (TDD)**, and **technical leadership**.

Education

Masters in Computer Science

University of Texas at Arlington

Arlington, TX

August 2023 - May 2025

Bachelor of Engineering in Information Technology

Maharashtra Institute of Technology

Pune, India

July 2016 - April 2020

Work Experience

Software Developer Intern

Smart Rewards Inc.

Remote, USA

September 2025 - Present

- Architected **production-grade RAG system** for automated content generation integrating **Supabase vector store** with **n8n workflows**, demonstrating expertise in context-based retrieval and LLM orchestration.
- Designed **conversational AI workflow** using **Gemini and ChatGPT LLMs via OpenRouter**, enabling natural language-driven automation for non-technical users - reducing manual processes by 85%.
- Built **end-to-end semantic search pipeline** leveraging document embeddings, contextual relevance scoring, and **LLM-based generation** tuned for multi-market localization
- Engineered integration between RAG components, **Gmail APIs**, and n8n orchestration, reducing manual email creation time by **85%**.
- Developed **AI-powered automation workflows** using **FastAPI micro-services** and containerized deployment via **Docker**, optimizing process throughput by **60%**.

Google Software Developer

Cybage Software Pvt. Ltd.

Pune, India

December 2020 - July 2023

- Developed and maintained **8+ high-traffic Google marketing sites** including [Google Sustainability](#), [Google Lens](#), and [Google Translate About](#), built using **TypeScript, SCSS**, and **Python/Flask templating**.
- Architected **responsive, mobile-first designs** ensuring seamless experiences across all device types and screen sizes.
- Ensured **WCAG 2.1 AA-compliant accessibility** implementing semantic HTML, ARIA labels, and keyboard navigation, enhancing **user engagement by 80%**.
- Optimized **site performance by 90%** through code-splitting, lazy loading, image optimization, and Core Web Vitals improvements, achieving **Lighthouse scores of 92+**.
- Automated CI/CD pipelines** for multi-locale builds in **GCP**, reducing deployment time by 40%.
- Led **cross-functional teams** and mentored **25+ developers** on JavaScript, TypeScript, and modern architecture, conducting regular code reviews.
- Established SDLC best practices including coding standards, peer review processes, and automated quality checks, improving team productivity by 30%.

Projects

Automated Video Generator | n8n, FastAPI, Docker, FFmpeg, Linux | [GitHub Link](#)

- Orchestrated a **multi-agent automation system** where specialized agents (**text-to-speech, PPT-to-image, video synthesis**) collaborated via **n8n** and **FastAPI microservices**.
- Automated video generation pipeline creating **6+ hours of video content daily**, reducing production time by 85%.
- Designed **event-driven architecture** using webhooks for real-time inter-service communication, enabling parallel processing of **multiple video generation requests** simultaneously.
- Integrated **text-to-speech (Kokoru API)**, **PowerPoint-to-image conversion (LibreOffice)**, and **video synthesis (FFmpeg)** as independent microservices with comprehensive error handling and retry logic.
- Deployed **production infrastructure** with **NGINX reverse proxy**, and **Cloudflare tunneling**, publishing Docker images to **GitHub Packages**, generating **60+ automated videos weekly**.

Chatbot for Automated Message Approval | FastAPI, Render, Next.js, MongoDB, TypeScript | [GitHub Link](#)

- Developed FastAPI-based **RESTful API** with pytest testing suite, reducing **manual moderation time by 80%** and improving **response time by 50%**.
- Integrated **Perplexity API (LLM)** with custom prompt engineering to analyze message appropriateness, reducing inappropriate content by 60%.
- Built **Next.js admin dashboard** and **MongoDB database** with optimized indexing for real-time monitoring and audit logs.

Facial Expression Detection API | TensorFlow, FastAPI, Docker, Gradio | [GitHub](#) | [Live Demo](#)

- Built **CNN model** for facial expression recognition with **80% accuracy**, trained on **15,000+ labeled images** (FER-2013 dataset, 7 emotions).
- Applied **data augmentation, dropout regularization, and hyperparameter tuning** to optimize performance and combat overfitting.
- Deployed in **Docker containers** on **Hugging Face Spaces** with **Gradio interface** and **FastAPI endpoints**, achieving **response time under 500 ms**.

Interactive Portfolio Website with Admin CMS | React, Django, Firebase, GSAP, Webpack | [atharvadevasthali.com](#)

- Built dynamic portfolio using **Django + Webpack** with lazy loading, SEO optimization, and **GSAP animations**, achieving **Lighthouse score of 92+**.
- Developed **schema-driven headless CMS** with **React + Vite, Firebase backend, Redux state management**, and secure authentication for real-time content updates.
- Implemented **responsive design** ensuring seamless user experience across desktop, tablet, and mobile devices with optimized asset delivery.

Technical Skills

Programming Languages: Python, Java, Go, JavaScript, TypeScript, SQL

Frontend: React, Next.js, Angular, Astro, React Native, HTML/CSS, Sass/SCSS, Tailwind, GSAP, Webpack, Vite

Backend & APIs: Spring Boot, Flask, Django, FastAPI, Node.js, Express.js, n8n, GraphQL, REST APIs

AI/ML: TensorFlow, Keras, OpenCV, Hugging Face, LLMs, Vector Databases, Multi-Agent Systems, CNNs

Databases: PostgreSQL, MySQL, MongoDB, Firebase

Cloud & DevOps: GCP, AWS, Docker, Kubernetes, CI/CD, Git, NGINX, Jest, Selenium, pytest

Certifications

Java Programming Masterclass - Udemy (2025)

IBM Full Stack Developer Professional Certificate - Coursera (2024-2025): React, Docker, Kubernetes

IBM AI Engineering Professional Certificate - Coursera (2024-2025)

Django Bootcamp - Udemy (2024)

Publications

Published first-author [research paper](#) "**IoT Based Inventory Management System with Recipe Recommendation using Collaborative Filtering**" in Springer ICECMSN Conference (LNDECT Vol. 53, pp. 543-550). Proposed novel recipe scoring algorithm using collaborative filtering for IoT-tracked inventory.