ATHARVA WAGH

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SUMMARY

Software Engineer with 2+ years of experience building AI-powered distributed systems, cloud-native architectures, and ML-driven applications. Skilled in Python, C++, TypeScript, and AWS, with a passion for designing high-performance infrastructure for large-scale model training and real-time inference. Experienced in bridging research and engineering to develop scalable, intelligent systems aligned with the future of Generative and Agentic AI.

TECHNICAL SKILLS

Languages: Python, C++ C#, Java, TypeScript, JavaScript, SQL, Bash

Frameworks: PyTorch, TensorFlow, LangChain, Spring Boot, Node.js, .NET, Next.js, Apache Kafka, Spark

Databases: PostgreSQL, MongoDB, MySQL, Firebase, Cassandra, AWS Redshift

Cloud/DevOps: AWS (Lambda, S3, EC2, Redshift), Azure, Docker, Kubernetes, CI/CD, Jenkins, Linux

Specializations: Distributed Systems, Multi-Agent Systems, Real-Time Processing, System Design

Specializations: Large-Scale ML Systems, Distributed Computing, Model Optimization, System Design **Analytics**: NumPy, Pandas, R Studio, PowerBI, Sci-Kit Learn

EDUCATION

–**University of Southern California, Los Angeles, CA**
Master of Science in Computer Science Expected May 2027

–**University of Mumbai, Mumbai, India** *GPA: 4.0/4.0*
Bachelor of Technology in Information Technology (Blockchain Honors) 2020-2024

PROFESSIONAL EXPERIENCE

–**Software Developer [Full Time]** *Mumbai, India*
Institute of Management and Foreign Studies (IMFS) Jul 2024 - May 2025

- Designed and deployed AI-powered automation modules within enterprise CRM systems using AWS Sagemaker and .NET, integrating Data-based insights for customer communication optimization.
- Built containerized data ingestion and transformation APIs with Docker and Kubernetes, achieving 65% faster response time and reliable scalability.
- Developed predictive ML microservices using AWS Lambda and REST APIs for forecasting customer conversion rates with over 80% accuracy.

–**Web Developer Intern [Co-Op]** *Mumbai, India*
Mabella SkinCare Jun 2023 - May 2024

- Designed and implemented a multi-role, full-stack CRM platform with TypeScript/React frontend, .NET backend, and PostgreSQL database, deployed on AWS for high availability and scalability.
- Architected and optimized database schemas, indexing, and caching strategies to reduce query latency and support large-scale analytics.

ACADEMIC PROJECTS

–**Ollama Powered Interview Officer** *2025*
LLM App | Langchain | UnSloth | Web Scraping | Docker | Typescript | Web Sockets | AWS RedShift | Apache Kafka

- Developed a RAG pipeline with AWS Redshift to train an Ollama LLM based government interviewing officer
- Leveraged the power of GPU computing to train the model using libraries like UnSloth and OpenGL
- Deployed the application on Docker Compose with WebSocket-based real-time interaction.

–**Blockchain-Based Renewable Energy Trading Platform (Research)** *2023-24*
Distributed Systems Research | Solidity Implementation | Capstone Project | Node.js | React.ts | Redux

- Developed decentralized P2P energy trading platform using Solidity smart contracts and IoT integration with embedded C programs for real-time sensor monitoring
- Built React.js frontend with Flask backend; integrated Web3.js for blockchain interaction on Polygon network using distributed algorithms for automated trading triggers

–**Predictive Analytics for College Admissions Application** *2024*
Machine Learning Project | Python | TypeScript | AWS Sagemaker | NumPy | Sci-Kit Learn

- Collected application data; performed EDA, handled outliers, and applied mean-based imputation; built ensemble pipelines with Random Forest and XGBoost for multi-class classification
- Achieved ROC AUC scores of 0.81 (train) and 0.78 (test); deployed model via FastAPI with REST endpoints for real-time predictions

RESEARCH & PUBLICATIONS

–**Bridging Energy Gaps: Blockchain-Enabled P2P Trading for Renewable Energy** *2024*