

Akhil Uthappa

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PROFESSIONAL SUMMARY

Results-driven Software Engineer with expertise in software applications, cloud technologies, microservices, and machine learning. Proven track record in enhancing operational efficiency and reducing costs. Strong problem-solving and leadership skills, with published research in top journals. Adept at developing scalable solutions and optimizing data pipelines using advanced technologies, and an effective project manager with cross-functional teams. Passionate about working towards a sustainable future for the ecosystem.

EXPERIENCE

Software Engineer- Machine Learning & Data, Civera

Mar 2024- Present Boston, MA

- Improved software architecture using Spark & AWS, reducing processing times by 40% & operational costs by 30%, increasing system adoption for 9 states.
- Developed a T3 application for a CV model, improving accuracy & efficiency of data processing. Concurrently fine-tuned the model to enhance performance.
- Created custom ETL packages, boosting data accuracy by 25% and processing speed by 35% for election data.

Gen AI R&D Engineer, Cleveland Clinic

Feb 2024 - Present Boston, MA

- Enhanced query response accuracy by 20% through the development and optimization of a Med-PaLM model with Retrieval-Augmented Generation (RAG), using Hugging Face Transformers and FAISS for similarity search. Improved data retrieval efficiency with Elasticsearch
- Reduced training time by 50% by implementing parallel training & inference on a Shared Computing Cluster

Software Engineering Intern- Machine Learning, Staples Inc.

May 2023 - Sep 2023 Boston, MA

- Engineered an analytics-infused logging system, improving the debugging time of Staples Center devices by 50%.
- Leveraged Spider dataset to create a text-to-SQL LLM on Azure, saving 40% of query generation time, & developed the POC using Gen AI, Streamlit, & Snowpark.

Machine Learning Research Assistant, Mass General

Jan 2023 - July 2023 Boston, MA

- Collaborated with stakeholders to design, develop, and test data pipelines, and researching to identify patterns.
- Increased report precision by 15% and reduced processing time by 20% by implementing scalable classifiers for radiation-treated brain cancers with TensorFlow and optimizing pipelines with Apache Spark.

Technical Fellow for Innovative Research, Boston University

Sep 2022 - Dec 2022 Boston, MA

- Developed a web 3.0 VR prototype for a collaborative application using C#, Unity, Open XR, & Solidity, achieving a 20% faster product launch
- Led cluster analysis of M&A transactions over 250 million USD, resulting in a publication at EAI CSECS 2023 & revealing key data trends & industry patterns.

Software Engineer II- Technical Project Manager, Verloop.io

Jan 2020 – Mar 2022 Bangalore, India

- Boosted CSAT score by 30% through developing company-specific AI chatbots within a Kubernetes-powered microservice architecture
- Enhanced team code quality and reduced debugging time by 25% by implementing a monitoring pipeline with Grafana and Sentry
- Promoted within a year by leading a team of 3 engineers, reducing productizing time by 60% through effective delegation, meetings, and code reviews.

Software Engineer I, DesignString

Jul 2018 - Jan 2020 Bangalore, India

- Modernized a legacy aviation asset management system, boosting speed by 40% using ML capabilities, and migrating data to PostgreSQL
- Automated database backup and encryption, integrating with cloud storage, reducing manual workload by 50%

EDUCATION

Boston University, MS in Computer Science with AI specialization

2022-2024 Boston MA

Coursework: Distributed Systems, Advanced Machine Learning, Big Data & Analytics, Advanced DB Management, Data Mining, Data Science with Python, IT Strategy & Management, Business Data Communications, networks & Design

Visvesvaraya Technological University, Bachelor of Engineering, Computer Science

Coursework: Data Structures & Algorithms, Machine Learning, OOP, Software Engineering, Computer Networks, Database & Mgmt

SKILLS

Methodologies: Object-Oriented Design Patterns, Software Engineering Principles, Agile Methodology, Scrum Framework, SDLC

Programming Languages: Java, Python, C++, C#, MATLAB, JavaScript, HTML/CSS, R, Go

Machine Learning and Cloud Analytics: Regression & Classification, Predictive Modeling, TensorFlow, PyTorch, Apache Spark, Hadoop, AWS (EC2, EMR, RDS, S3, Lambda, Redshift, Athena, Glue), Databricks/Spark, PostgreSQL, SparkSQL, Pandas, PySpark, Airflow, GCP(Compute, Dataproc), Azure

Web tech & Databases: Django, FastAPI, Flask, REST API, SOAP API, Microservices, Apache Kafka, MySQL, PostgreSQL, MongoDB, Docker, Kubernetes

Other Technologies and Tools: Scrum, Agile, JIRA, Git, Unity, Open XR, VR Development, Tableau, Microsoft Excel, CI/CD, GitHub Actions, Quartz

Soft Skills: Problem-Solving, Teamwork, Communication Skills, Adaptability, Time Management, Leadership, Project Management

LEADERSHIP & VOLUNTEERING EXPERIENCE

Co-founder and Chief Technical Officer, **Talkvert**

April 2021 – April 2023 **Bengaluru, India**

- Co-founded & led the development of a virtual stage platform with ML capabilities using Kotlin & Flutter, managing cross-functional teams & overseeing UI/UX

Captain, **Indian National Soccer Team**

Beijing, China

- Captained the Under 19 Indian national team at an international tournament in Beijing, China, achieving runner-up status after playing for a top club in India.

Volunteer, **One Community Global**

Jan 2024 – May 2024 **San Gabriel, CA**

Conducted operations, code PR reviews, and project management for sustainable city development projects, contributing to innovative urban solutions.

PROJECTS

BU CollaborART

- Developed and deployed a collaborative VR art game using C#, OpenXR, and Unity, implementing Agile practices for iterative development. Addressed performance and UX challenges by identifying and resolving artist workflow issues, ensuring seamless integration and enhanced user interaction.

E-commerce ETL Data Warehouse

- Designed and deployed a scalable e-commerce data warehousing solution using Python for ETL processes and PostgreSQL for database management and complex query optimization. Integrated PgEvent Scheduler for automated task orchestration and leveraged Tableau for dynamic, real-time data visualization.

Distributed Deep Learning Optimization

- Optimized and deployed a distributed DCGAN model with TensorFlow on AWS SageMaker, utilizing Horovod for parallel training. Streamlined model deployment using AWS endpoints, enabling scalable inference and real-time performance monitoring for enhanced efficiency and speed.

PUBLICATIONS & AWARDS

- [Published author for EAI Conference on Computer Science and Education in Computer Science EAI CSECS 2023.](#)
- [Published research in eM&Ai. the European M&A Institute.](#)
- Runner-Up representing India in the Great Wall Cup International Soccer Championship held in Beijing, China

INTERESTS

Snowboarding, Sailing, Soccer, Gaming