## OMKAR UBALE

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#### **EDUCATION**

Northeastern University, Boston, MASep '22 – Dec '24M. S. in Computer Science - Khoury College of Computer SciencesGPA: 3.95 / 4Vellore Institute of Technology, Vellore, IndiaAug '14 – May '18B. Tech. in Electronics and Communications EngineeringGPA: 8.45 / 10

**WORK EXPERIENCE** 

Sway AI Burlington, MA

## **Full-Stack Software Engineer Co-op**

Jun '23 – Dec '23

Aug '18 – Jun '22

- Implemented Partial Dependence Plots and What-If Analyzer for 20+ models to optimize model evaluation using Python, Django, React, AWS, and MongoDB as microservices, reducing iteration time from 2 hours to 30 minutes per model for users
- Introduced monitoring for models deployed on Kubernetes using Prometheus and Grafana, enabling real-time tracking of deployment's replica count, CPU, memory, errors, and inference requests
- Refactored 3 critical Django APIs by optimizing relational database queries and AWS Lambda configurations, reducing latency from 17s to 0.8s through optimized querying and using provisioned Lambda instances
- Incorporated Mongo export with proprietary querying middleware, enabling export of training, trial run, and inference data

# Rare Crew Senior Full-Stack Software Engineer

Bengaluru, India & Belgrade, Serbia

Led a team of 20 engineers and co-led a team of 60 developers in building an ERP product with 50k+ active users

- Youngest team leader in company history, leading a team of 12 developers in key ERP feature development within 8 months, recognized for rapid advancement through performance excellence
- Founded and led a mentorship program, training 50+ developers over 2 years, reducing attrition rate from 50% to 5%
- Designed and implemented a role-based permissions model using C#, .NET and MS SQL Server, supporting 250 million configs
- Implemented indexing strategies and normalization techniques to improve SQL query execution time of 90+ stored procedures and 60+ user-defined functions to < 1 sec
- Built process management tools, asset management modules, and external sharing engine using insights from customer-facing subject matter experts using C#, .NET, SQL Server, and Azure, cumulatively building 800+ RPC and REST APIs
- Automated Azure deployments for 4 core application microservices, cutting deployment time from 2 hours to 7 min
- Created integrations layer for ERP product with SAP Systems and Power BI, enabling visibility of 14,000+ assets for <u>Endeavor</u>, reducing the time required for status updates of assets from 60 to 4 hours per week

#### **AWARDS**

## Sway AI, Burlington MA – Employee Recognition Award

Sep '23, Oct '23

- Awarded for exemplary performance, initiative in feature development, and application performance improvements
- Recognized for ensuring a smooth release for a client demo, which led to securing the company's first client

#### Rare Crew, Bengaluru, India – Top Peer rated employee of the year

'19, '20, '21

 Recognized as a top 3 peer-rated employee for exceptional work quality, founding a mentorship program for junior employees, leading teammates, preemptively resolving client issues, and contributing articles to the company blog

## **PROJECTS**

## Triangles in a Twitter Graph data using Hadoop MapReduce [code available on request]

Sept '24 – Present

Calculated counts for 2-hops and triangles in 1.3 GB graph using Reducer Side join and Replicated Join on Hadoop MapReduce
 Remotely Managed File System with Distributed Access
 Jan '23 - Mar '23

- Engineered a Unix-based remote file system to communicate over TCP sockets, and support reading/writing files and folders
- Created as a distributed RAID-1 file system of reads across all drives using multi-threading and parallelized reads in C

## **Portfolio Manager Desktop Application**

Sep '22 - Dec '22

- Desktop application built using Java 8, JUnit 4, Java Swing, Java Spring Boot, and Alpha Vantage API to manage portfolios
- Showcases best practices using MVC, abstraction, and appropriate design patterns, with focus on code reuse and unit testing

## **TECHNICAL SKILLS**

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

**Frameworks/Libraries**: Django, .NET Core, .NET MVC, Entity Framework, React.js, Angular, JUnit, JDK, NodeJS, Spark, Hadoop, <u>Kafka</u> **Databases**: MySQL, SQL Server, MongoDB, PostgreSQL, DynamoDB, AWS Aurora, GCP Firebase Realtime Database

Others: HTML, CSS, SCSS, Kubernetes, AWS, Azure, REST, Bash, Linux, Jenkins, Git, GitHub, Netlify

## **CERTIFICATIONS**

<u>AWS Certified Solution Architect Associate</u>, Amazon Web Services <u>Confluent Fundamentals Accreditation (Apache Kafka)</u>, Confluent