

Akhila Sulgante

+1(628) 276-3832 | asulgante39@gmail.com | [Linkedin](#) | [Github](#) | [Portfolio](#) | San Francisco, CA

Software Developer with 3+ years of experience in microservices and back-end engineering, currently researching ML model fairness with Data Visualization to drive meaningful advancements in the field.

Education

Northeastern University, San Francisco

Jan '22 – Dec '23

Master's in computer science, 3.9/4.0

Roles: Teaching Assistant(Algorithms, Intensive Foundations of Computer Science), Research Assistant

Dr. Ambedkar Institute of Technology, India

Aug '13 – June '17

Bachelor's in computer science

Work Experience

Summer Analyst | Goldman Sachs, Japan

July '23 – Sept '23

Skills: Java, JUnit, Mockito, Spring, MongoDB, CI/CD, System Design, API Development, Test Strategies, ElasticSearch

- Built an enhanced retry mechanism using Java and Spring Boot for a report delivery platform that reduced **365.4 hours** of retry time (in 30 days) and **87%** reduction in Apache Flink calls by eliminating repeated data pipelines
- Performed extensive Unit, Integration, System, Stress, and Regression testing using Mockito, JMeter, and Swagger UI to ensure the quality and reliability of the API after retry feature addition
- Implemented CI/CD processes using GitLab for seamless feature development and deployment

Account Specialist | Amazon, India

May '20 – Dec '21

Skills: Data Analysis, Business Development, Data Visualization, Search Engine Optimization, Quality Assurance

- Collaborated with brand representatives to develop data-driven ad campaign strategies for over 120 brands, achieving an average of 40% increase in product visibility within one year
- Leveraged Tableau for Voice of Customer data analysis, resulting in the creation of an efficient process that reduced customer query resolution time from 5 to 2 business days

Assistant Application Developer | Fujitsu, India

Dec '17 – Mar '20

Skills: Object-oriented Design, Java, Junit, Algorithm, SQL, Integration Testing, Bug fixing, Requirement documentation

- Designed efficient Algorithms and developed components in Java and tested them with JUnit
- Swiftly resolved Integration Testing issues ahead of schedule, leading to a 30% reduction in the phase duration
- Performed bi-weekly reviews, assessed team's quality performance, and devised improvement strategies

Key Projects

CrystalLens – A bias detection tool for ML models (Research)

Sept '23 – Present

- Created a tool that empowers users to identify bias within their ML datasets, offering visualization of distribution, composition, and feature correlations. Additionally, it computes the Adverse Impact of the dataset
- The tool illustrates changes in the evaluation metrics according to user-defined selections of training features, and sample split on suspected disadvantaged subgroups and detects bias using Equal Opportunity Difference

Peko - A food ordering website

Nov '22 – Dec '22

- Deployed a **MERN**-stack food delivery app following **agile** practices and performed unit and system tests
- Executed A/B tests to optimize the website's performance and UX through data-driven improvements
- Incorporated filtering options to ease the ordering process and implemented **CRUD** operations in **MongoDB**

Hate Speech Detection

Jul '22 – Aug '22

- Built **Shallow and Deep learning models** to detect hate and offensive speech on Davidson's Twitter dataset
- Preprocessed the dataset using **NLTK library** functions to improve model accuracy by 15%
- Developed multi-model consisting of **CNN and MLP** with **TF-IDF word embedding** and **regression classifier**

Technical Skills

Domain Knowledge: Machine Learning, Natural Language Processing, Software Development, Web Development, Data Visualization, DBMS, Microservices, Data Structure, Algorithms, System design

Programming Languages: Java, Python, C, C++, JavaScript, R

Web Development: HTML, CSS, React, Node.js, Express.js

Database: MySQL, MongoDB, ElasticSearch

Testing: JUnit, Cypress, JMeter, Mockito