

# VISHAL SARDA

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## PROFESSIONAL EXPERIENCE

### Amazon Web Services, Software Engineer User Insights Services Personalization team

Bellevue, WA

August 2022 - Present

- Led a team of 4 engineers to deliver Machine Learning projects that generate real-time recommend services and user persona for AWS users. Unified the data source for consumption by all AWS Console teams who saw a 20% jump in new user activities in the Beta rollout.
- Designed a unified data service across all AWS teams, emitting data for personalized experience on different consoles. Captured data from RedShift into S3 using Hammerstone SQL jobs and built a data pipeline with Python Glue to process the data. Ran a SageMaker ML inference model via Java AWS Lambda and used DynamoDB as the model inference storehouse.
- Added a data backfill workflow in Java for data sanity and collected metrics on Cloudwatch dashboards to trigger alarms for polluted data.
- Opt-in Region Expansion:* Working on expanding the Personalization service in multiple regions. Reduces service latency, mitigates data security concerns and provides a one-click mechanism to expand the service to any new AWS region in the future.
- Participated in code reviews and design discussions. Handled on-call duties for personalization and data engineering teams.

### OpenSearch Core Engine team

- Enhanced performance of AWS [OpenSearch](#), an open source version of Elasticsearch in Java. Allowed deletion of read-only searchable snapshot indices and guarded snapshot backing indices from deletion. Fixed the search API for datetime input parameter.

### Microsoft, Software Engineer Whiteboard Integrations team

Redmond, WA (remote)

March 2021 – August 2022

- Worked on several high impact features that enhance Whiteboard user experience in Microsoft Teams having 270M+ monthly active users.
- Designed and implemented owner-only mode in React and Typescript. Extended Whiteboard edit mode to external users in tenant meeting.
- Improved Whiteboard security by introducing proof tokens on the client side and validating user actions in a Teams meeting session.
- Mitigated privacy concerns for gov tenants for Tab App by migrating data storage to the latest low-latency Microsoft Fluid framework.
- Mentored interns twice to enhance Whiteboard functionalities within Teams. The projects accomplished integrating the app to unify user-owned boards, pasting board links in meeting chat and implementing the Whiteboard notification feature.
- Actively participated in code reviews, design discussions, interview loops and mentoring new hires. Promoted writing high quality code with documentation and unit tests within the org. Increased diversity and inclusion awareness at Whiteboard as a member of D&I team.

### Microsoft, Software Engineering Intern Whiteboard Integrations team

Redmond, WA (remote)

May 2020 – August 2020

- Created a Whiteboard tab application for Microsoft Teams using C#, Typescript and Azure CosmosDB. This application led to ~10% increase in Microsoft Whiteboard usage at schools and organizations for asynchronous collaboration during Covid-19.

### Paysafe, Software Engineer Unity Portal team

Hyderabad, India

Oct 2018 – July 2019

- Merchant Management:* Single-handedly conceptualised and built an entire user management workflow for the Unity Business Portal in Java using MySQL that included stages starting from first time login, change/forgot password for new merchants.
- Merchant Onboarding:* Improved the identity access management workflow by providing the functionality to assign pre-defined, custom roles and permissions to the users so that agents can onboard new merchants without any hassle and in very less time.

### D.E. SHAW, Software Engineer Human Resources Development team

Hyderabad, India

July 2016 – Sept 2018

*Application Management System (AMS):* Worked on building the AMS as a part of the new Application Tracking System at the firm with a 50% decrease in the page load time through dynamic page loading using Java, MySQL, ReactJS which improved the job applicant experience.

*Recruitment Management System (RMS):* Built the Interview Scheduling and Candidate Pipeline tools for the new RMS using Java, MySQL and ReactJS and Struts framework. These tools significantly reduced the manual effort involved in the candidate hiring cycle thus helping the Human Capital team to screen candidates in an organised manner and speed up the hiring process.

### Payroll Development team

- Automated various processes such as Deferred Compensation management, Payroll Reconciliation and Employee Contribution by building user interactive workflows and gadgets using Java, MySQL, DPortal, Javascript, Slickgrids, MyBatis and ReactJS.
- Solved high-priority issues with extremely low turn-around time during on-call shifts. Mentored new hires in the team.

### ALGOANALYTICS, Research Project Intern

Pune, India

Dec 2015 – May 2016

- Implemented an open-source [classifier](#) in R to classify patients suffering from brain disorders like Schizophrenia and Dementia.
- Achieved an accuracy of 92% (Schizophrenia, 119,748 test cases, 2<sup>nd</sup> best in Kaggle) and 98% (Dementia, 336 total cases) using this binary classification tool by using SVM, Neural Networks and other algorithms ensembled into one after feature selection.
- Combined Caret (R), Weka (Java) and Scikit Learn (Python) in one package to efficiently use the models as per the preference.

### ADP, Software Development Intern

Pune, India

May 2015 – July 2015

- Built a web application for Hiring Managers for tracking open positions at the firm as well as various candidacy stages like Resume Review, Resume Screening, Interviewed, etc in the form of dashboards and intuitive pie charts using Java and AngularJS.

## TECHNICAL SKILLS

**Programming Languages:** Java, C++, C, C#, Python, R, SQL, Typescript, Javascript, HTML/CSS

**Frameworks and Libraries:** REST, Native AWS, Maven, Spring, AngularJS, React, Tensorflow, scikit-learn, Kafka, JIRA, GIT, Swagger

**AWS:** DynamoDB, Lambda, Simple Storage Service (S3), Simple Queue Service (SQS), Glue, Simple Notification Service (SNS), SageMaker, Identity & Access Management (IAM), CloudWatch, OpenSearch

## EDUCATION

### Stony Brook University

Stony Brook, NY

Dec 2020

### Master of Science, Computer Science

GPA - 3.79/4

*Coursework:* Analysis of Algorithms, Theory of Databases, Probability and Statistics for Data Scientists, Data Science Fundamentals, Introduction to Modern Cryptography, Human Computer Interaction, Smart Energy in the Information Age

*Teaching Assistant:* Fundamentals of Information Technology, Computer Science Honors

### College of Engineering, Pune University

Pune, India

May 2016

### Bachelor of Technology, Computer Engineering

GPA - 8.44/10

*Coursework:* Data Structures, Operating Systems, Software Engineering, Database Management System, Storage and Virtualisation, System Programming, Computer Networks, Graph Theory, Compiler Construction, Data Communication, Microprocessor Techniques