VISHAL SARDA

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PROFESSIONAL EXPERIENCE

MICROSOFT*, *Software Engineer ***Redmond, USA*** ***March 2021 – Present***

- Part of the Integrations team at Whiteboard that integrates Whiteboard with Microsoft Teams having 270M+ monthly active users.
- Designed and implemented proof token and owner-only edit mode in Typescript, enabling external users to edit meeting whiteboards.
- Mitigated privacy concerns for gov tenants by using the low-latency Microsoft Fluid framework for Whiteboard tab app backend storage.
- Mentored an intern to build a personal app for Whiteboard within Microsoft Teams which enables users to access all boards in the app.
- 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 ***Redmond, USA*** ***May 2020 – Aug 2020***

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

PAYSAFE, Software Engineer ***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 password to forgot password for new merchants.
- ***Merchant Onboarding:*** Improved the identity access management workflow by providing the functionality to assign pre-defined and custom roles and permissions to the users so that agents can onboard new merchants without any hassle and in very less time.
- Proactively provided product improvement suggestions and implemented various new features such as graphical representation of Authorization and Transactions, transaction drill-down and user favourites using Java, Kafka, MapR, Highcharts and AngularJS.
- Took initiative to enforce best practices in Object Oriented Programming in Java within the team. Actively participated in code review and contributed to improve overall codebase coverage using test driven development.

D.E. SHAW, Software Engineer ***Hyderabad, India*** ***July 2016 – Sept 2018***

ATS – Application Tracking System

- ***Application Management System (AMS):*** Worked on building the AMS as a part of the new ATS at the firm with a 50% decrease in the page load time through dynamic page loading using Java, MySQL, ReactJS which improved the overall 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 entire candidate hiring cycle thus helping the Human Capital team to screen candidates in an organised manner and speed up the entire hiring process.

Payroll Workbench

- 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.
- Debugged applications deployed in production, solved high-priority issues with extremely low turn-around time and mentored new hires.

ALGOANALYTICS, Research Project Intern ***Pune, India*** ***Dec 2015 – May 2016***

- Implemented an open-source **classifier** in R to classify patients suffering from brain disorders such as Schizophrenia and Dementia.
- Achieved an accuracy of 92% (Schizophrenia, 119,748 test cases, 2nd best in Kaggle) and 98% (Dementia, 336 total cases) using this binary classification tool by using SVM, Neural Networks and many 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 according to 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, Maven, Spring, Struts, AngularJS, React, Tensorflow, Keras, scikit-learn, Kafka, JIRA, GIT, Swagger

EDUCATION

Stony Brook University ***Master of Science, Computer Science*** ***New York, USA***
CGPA- 3.79/4.0 ***Dec 2020***
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

College of Engineering Pune ***Bachelor of Technology, Computer Engineering*** ***Pune, India***
CGPA- 8.44/10.0 ***May 2016***
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

ACADEMIC PROJECTS

- ***Missing Data Imputation using Generative Adversarial Networks***: Designed a Generative Adversarial Net (GAN) that imputes missing data in numerical datasets as a part of my Masters' research project. Analysed the imputation accuracy in depth using different visualisations. The GAN network achieved an RMSE of 0.052 on UCI spam base dataset and 0.126 on UCI letter recognition dataset.
- ***Energy Disaggregation and Transfer Learning using Deep Learning:*** Built a neural network architecture that disaggregates individual appliance's electricity consumption from mains data using stacked ensemble learning. Built using Keras and consists of bidirectional GRU and LSTM at its core. Model trained on one appliance can also be used on other appliance through transfer learning.
- ***COVID-19 Data Analysis:*** Proposed and tested 5 hypotheses in Python such as Z-test, Chi-square, K-S, Permutation, Wald' test on the COVID-19 NY counties data. Predicted number of deaths through time-series prediction using EWMA and Auto-Regression.
- ***Retail Sales Data Analysis***: Analysed retail sales data (17M rows, 60 features) from Costello's Ace, a hardware firm in the USA. Identified various ways for the firm to increase sales and suggested potential locations to open new stores through time series and market basket analysis, personalized product recommendations. Backed up all findings through Tableau and Matplotlib visualisations.