

## EDUCATION

**Master of Science in Computer Science, State University of New York at Buffalo - CGPA 3.70 / 4.0** Aug 2021 – Feb 2023

- Coursework – Analysis of Algorithms, Machine Learning, Reinforcement Learning, Distributed Systems, Operating Systems, Pattern Recognition, Database Models and Query Languages, Blockchain Application Development
- Presented a [project](#) that was in the top 45 out of 550 projects, to sponsors and judges from the industry as part of [CSE-Demo Days](#) held at University at Buffalo

**Bachelor of Engineering in Computer Engineering, University of Mumbai - CGPA 3.46 / 4.0**

July 2013 - May 2017

- First place: Technical paper presentation on “Mobile Based Context E-store Offers Recommendation System”

## SKILLS

Web &amp; Backend Development: Java, Spring Boot, Node JS, JavaScript, Mocha, Python, C#, SQL, REST APIs, DOM APIs, HTML, CSS

Infrastructure &amp; Tools: Docker, Kubernetes, Git, Jira, VSTS, SQL Server, Postgres, MongoDB, Microsoft Azure Cloud Services

Microsoft Certifications: Azure Developer Associate (AZ-203), Azure Fundamentals (AZ-900), Programming in C# (70-483)

## PROFESSIONAL EXPERIENCE

**Software Engineer II, iMedia Brands Inc, New York, United States**

March 2023 - Oct 2023

- Developed a high-performance ad server in Java, adhering to IAB Open-RealTimeBidding standards (VAST protocol), capable of handling 3000+ ad requests per second.
- Improved ad serving latency by 20% via caching mechanisms using Varnish, Aerospike, as well as load balancing with Nginx.
- Implemented containerization with Docker, error handling, logging, and unit tests in JUnit, Sinon-Chai, resulting in a 15% reduction in critical system failures. Actively engaged in code reviews.
- Collaborated across teams to design and integrate REST APIs and web services using SpringBoot and Node.js, ensuring seamless frontend and backend integration.
- Created interactive user interfaces initially with Angular, later transitioning to React for data, metrics, and reports presentation. Leveraged MySQL queries to retrieve and analyze data from AWS Redshift storage.
- Optimized web application performance through webpack configuration for bundling and asset optimization.
- Proficient in network traffic monitoring and analysis using tools like Wireshark and tcpdump to ensure optimal performance.
- Employed Grafana for data and infrastructure monitoring, and managed code repositories using BitBucket.

**Technical Consultant II, Microsoft, Hyderabad, India**

July 2017 - July 2021

- Developed solutions within Microsoft Dynamics 365 Customer Engagements at Microsoft India Global Delivery.
- Created features for visa application management, encompassing creation, updates, and cancellation requests, as well as handling linked entities and sub-entities vital to the process.
- Engineered a robust C# backend service that seamlessly validated application requests by integrating with external APIs.
- Spearheaded solution design for the Integration engine, consolidating four integration types into a single framework, effectively managing over 40 integration endpoints.
- Architected an integration framework in C# utilizing the .Net framework, enabling comprehensive functionality via Azure Logic Apps, Service Bus, Event Grid, API management, Azure functions, and Microsoft Power Platform.
- Enhanced efficiency by leveraging Selenium Grid, facilitating parallel execution of scripts on 12 interconnected nodes through a hub, achieving a remarkable 12-fold speed increase.
- Extended the EasyRepro Framework to accommodate the transition from the classic to UCI version of Microsoft Dynamics 365, automating 300 regression test scripts and reducing human intervention and errors.
- Orchestrated events that led to a significant 15% boost in employment satisfaction, providing mentorship to new team members and successfully leading teams.
- Refined team communication via scrum meetings enabling 100% on-time delivery of engagements with up to 98% customer satisfaction. Delivered 6 releases of an engagement following agile methodology over a period of 1.5 years.
- Honored with SPARK Award (2021), SPOT Award (2019), and Best Team Awards (2018, 2019) for outstanding contributions.

## PROJECTS

**Quote Generator – Multi-node Distributed System**

Utilized the RAFT Consensus algorithm to construct a web application with a multi-node distributed system backend, incorporating Node.js, HTML (EJS), REST APIs, MongoDB, and Docker containerization. Ensured fault tolerance through data consistency and managed communication via UDP sockets.

**Solving Sudoku Using Image Detection and Deep Learning ([GitHub](#))**

Developed a Python project to solve Sudoku from input images, which involved preprocessing by cropping and binarization. A deep neural network classified, transformed digits, and a second network achieved 99% accuracy in solving the Sudoku.

**Flight Management System**

Designed a PostgreSQL-based relational database system for real-time multi-airline flight booking and tracking, avoiding the inconvenience of visiting multiple websites or having to use reward points for a specific airline. The application's front-end and back-end were implemented with Node.js, JavaScript, HTML and CSS.

**Empathetic Dialogue Generation using Deep Reinforcement Learning ([GitHub](#))**

Created a Python chatbot offering empathetic support for individuals facing mental health challenges. Employed metrics like empathy score, flow score, Jaccard, and cosine distance to evaluate responses against GPT-2. Utilized the Proximal Policy Optimizer to enhance the deep neural network model using input and scores.