

Rajesh Bammidi

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EDUCATION

University at Buffalo, The State University of New York

Buffalo, USA

Master's in Computer Science; GPA: 3.9/4.0

August 2022 – December 2023

Lovely Professional University

Jalandhar, India

Bachelor of Technology - Computer Science and Engineering, CGPA: 9.32/10.00

August 2016 – May 2020

TECHNICAL SKILLS

Programming: Java(**Oracle Certified Java Programmer**), C/C++, Python, JavaScript, TypeScript, Kotlin,HTML/CSS

Database: PostgreSQL, MongoDB, MySQL, Firebase, T-SQL, Azure, AWS (**AWS Certified Cloud Practitioner**)

Development: Microservices, Spring Boot, Android Development, Express.js, Node.js, ReactJS, Material-UI, Hadoop

Dev Tools: Git, JMeter, CI/CD, Docker, Agile, SCRUM, JIRA, VS Code, IntelliJ, Eclipse, Linux

Others: Data Structures And Algorithms, Parallel Algorithms, Object Oriented Design, Design Patterns, MPI, Open MP

EXPERIENCE

University at Buffalo

January 2023 – Present

Graduate Teaching Assistant

Buffalo, US

- Instructing students in mastering **Data Structures and Algorithms** (CSE 250), enabling proficient problem-solving using advanced algorithms like **Graphs**, **Trees**, and **Dynamic Programming** for real-world challenges.
- Guiding online learners from diverse backgrounds in **Core Java** and **JavaFx** programming concepts to foster understanding and growth.
- Collaborating with Professor Sreyasee Das for the Data Model and Query Language course (CSE 560), enhancing student comprehension of **PostgreSQL** and supporting scalable **SQL** database design.

Urban Company

December 2020 – August 2022

Software Development Engineer 1

Bangalore, India

- Developed scalable backend microservices with **Node.js**, **Express.js**, **TypeScript**, and **MongoDB** for the provider matchmaking system, optimizing the customer experience.
- Reduced critical **API** response times for the slot capacity service, achieving **P99** and **P95** times under **150ms** and **50ms**, respectively, down from around **350ms** and **150ms**.
- Migrated native Provider Android App screens to **React Native** using the in-house Orion framework, ensuring consistent UX across **Android** and **iOS** platforms, reducing deployment wait time by **45%**.
- Engineered a dashboard for configuring provider calendar metrics at the city level, enabling informed business decisions. Integrated **Airflow** workflow to populate **1M** data points in MongoDB for the dashboard.
- Implemented the Festival Management System (FMS) feature and seamlessly integrated it into the provider **Android/iOS** app and backend services. This enhancement enabled accurate prediction of provider availability during festive or holiday seasons, resulting in an **85%** reduction in no-shows. This contribution significantly improved customer service and business operations.
- Automated the existing microservices deployment process by integrating services into the **CI/CD** deployment pipeline, leading to an impressive **84%** boost in deployment efficiency. Leveraged **Jenkins**, **Jira**, and **GitLab** to successfully achieve this milestone.

NCR Corporation

January 2020 – December 2020

Software Engineer 1

Bangalore, India

- Developed robust web applications for financial banks using **ReactJS** and **Spring Boot (Java)** to create responsive and scalable user interfaces and backend services, achieving 100% test coverage.
- Optimized response time of critical backend APIs in banking applications from **180ms** to **70ms** through API profiling and optimization, and conducted load testing using **JMeter**.
- Led a team of interns in developing an organizational hiring platform from concept to deployment, utilizing ReactJS and Spring Boot (Java). The product satisfied employee onboarding needs and delivered substantial value.

PROJECTS

Parallelization of KMP string matching algorithm | C/C++, MPI, OPEN MP, SLURM

- Developed a parallel KMP string matching algorithm under the guidance of Prof. Dr. Russ Miller. Emphasized optimizing inter-processor communication, resulting in improved runtime. Conducted experiments on substantial DNA datasets at Buffalo's Centre for Computational Research facility, with performance assessments across diverse network bands like **TCP/IP** and **IB**. Enhanced proficiencies in **high-performance computing**, algorithm design, and optimization.

Project Enigma | PostgreSQL, Node.js, TypeScript, ReactJs, Git

- Designed and developed Buffalo's groundbreaking home services web app using React for frontend development and **Node.js** with **PostgreSQL** for scalable backend services and deployed it in AWS EC2. Successful campus trials impressed investors, leading to encouragement for widespread deployment. Transformed the home services industry in Buffalo, optimizing convenience and efficiency for service providers and customers alike.

mPokket | Java, Android, SQLite, Firebase, Git

- Designed and developed an Android e-wallet app tailored for LPU students, streamlining the process of requesting funds from verified lenders following successful student verification. Implemented **MVVM** and **MVC** design patterns for optimal structure and employed **SQLite** and **Firebase** for robust data management. Deployed the application on the Google Play Store, serving a user base exceeding 5,000 students.