

Ruchir Agarwal

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EDUCATION

San Jose State University - San Jose, CA, USA

January 2021-August 2022 (Exp.)

Master of Science in Computer Software Engineering

GPA 3.83

Enterprise Software Platform | Enterprise Distributed Systems | Software Systems Engineering

Dr. A.P.J. Abdul Kalam Technical University - India

August 2012-May 2016

Bachelor of Technology in Computer Science and Engineering

TECHNICAL SKILLS

Language: Java, JavaScript, C#, VB.NET

Database: MongoDB, MySQL, Redis

Front-end: React, Redux, HTML5, CSS3, Bootstrap

Back-end: Spring Boot MVC, REST API, NodeJS,

ExpressJS, Apache Kafka

Tools: VSCode, IntelliJ, Postman, JIRA, GitHub, TFS, Confluence

Testing: Mocha, JMeter

Cloud/DevOps: AWS (EC2, ECR, S3, RDS), Docker, Kubernetes

WORK EXPERIENCE

GrapeCity India Pvt. Ltd - Noida, India

April 2016-December 2020

Software Engineer

Technologies: .NET, C#, WPF, WinForms, .NET Core, VB.NET, UWP

- Estimating and planning deliveries, gathering business needs, and translating them into technical solutions in .NET
- Spearheaded the migration of an application from traditional HTML to ReactJS to improve UX across different devices
- Modularized and implemented the Integration module to integrate various services in the internal framework
- Achieved 75% code coverage by conducting unit tests of the modules that also increased software robustness by 11%
- Refactored codebase for multiple upload modules, resulting in a 24% improvement in response time
- Held bi-weekly Agile-SCRUM sprints and participated in sprint planning, retrospect, and sprint review
- Collaborated with clients and the product manager to execute UAT shooting up stakeholder acceptance by 38%

PROJECTS

Splitwise Prototype

February 2021-March 2021

Technologies: MongoDB, MySQL, Express.js, Node.js, React.js, Redux, Kafka, AWS (ECR, S3)

- Developed a distributed web application that enables users to track bills and split shared expenses
- Built RESTful APIs using Node.js and Express.js, and integrated Kafka for increasing system availability and scalability
- Enforced request authentication using Json Web Tokens (JWT) and incorporated Redux for state management
- Boosted application response time by 21% utilizing SQL connection pooling
- Performed load testing using JMeter for 1000 users and deployed the dockerized web application to AWS ECR

Reddit Simulation

April 2021-May 2021

Technologies: MongoDB, Express.js, React.js, Redux, Node.js, Kafka, AWS (EC2, S3), Redis, SocketIO, Kubernetes

- Coordinated with a team of five to simulate Reddit and implemented Redis caching, which improved performance by 35%
- Deployed sharded MongoDB cluster and incorporated role-based access for community management
- Implemented real-time messaging feature using Socket IO and used AWS S3 as an image server for high throughput
- Managed concurrent requests from 5000 users by utilizing Kubernetes for load balancing and hosted the app on AWS EC2

Zillow Prototype

June 2021-August 2021

- Designed and developed a real estate market application using MERN Stack
- Collaborated with a team of three and spearheaded Agile-SCRUM ceremonies (sprint planning, retrospective & more)

Vaccination Management System

September 2021-November 2021

Technologies: Java, Spring Boot MVC, AOP, ReactJS, MySql, REST, NodeJS, AWS

- Designed dashboards and built backend to make, view, edit, cancel, check-in appointments and mimic time elapsing
- Integrated OAuth using Google and implemented Spring Security for role-based authorization, authentication, and logging