RUTVIK RANA

Software Engineer

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PROFESSIONAL SUMMARY

Full Stack Software Engineer with 2+ years of experience building scalable web applications using JavaScript, TypeScript, ReactJS, and NodeJS. Experienced in integrating cloud services and working with databases (PostgreSQL, MongoDB). Strong track record of delivering high-quality code and collaborating effectively in agile teams.

PROFESSIONAL EXPERIENCE

Software Engineer

Jan 2023 - Present | Tech Holding, Ahmedabad, India

- Architected micro-frontend agent workspace for American Express handling 10K+ concurrent agents using WebRTC and Genesys Cloud.
- Built dual monitoring system for 30K+ agents: Infrastructure Dashboard with smart filtering (storing only 200-500 problematic agents) and Workforce Analytics using AWS Lambda for daily productivity calculations with checkpoint recovery.
- Developed centralized log management system integrating S3-stored logs with searchable dashboard, reducing debugging time by 60%.
- Implemented payment module with partial payment functionality and invoice generation for CourseKey platform.
- Developed employee management system using PERN stack with Google SSO, reducing HR processing time by 40%.
- Led frontend development for enterprise clients, analyzing APIs to define backend requirements.

KEY PROJECTS

American Express - Log-Forte (Centralized Log Management System)

- Developed log monitoring system providing centralized access to S3-stored application logs for multiple development teams.
- Implemented daily automated job fetching metadata from S3 buckets and indexing in PostgreSQL for efficient searching.
- Built on-demand log streaming API that retrieves content from S3 only when requested, reducing storage costs by 90%.
- Created React dashboard with advanced filtering, search, and real-time log viewing capabilities for debugging.
- **Tech Stack:** React, OneApp Framework, Node.js, REST APIs, PostgreSQL, AWS S3, AWS SDK, node-cron

American Express - Cloud Connector Dashboard

- Architected enterprise-scale micro-frontend agent workspace handling 10K+ concurrent agents with real-time communication.
- Reverse-engineered Genesys Workspace Desktop to web-based modules using OneApp framework following a micro front-end architecture.
- Implemented complex call features (conference, transfer, consultation) and omnichannel support (voice, chat, email).
- Led 70% of Phase 1 delivery as sole frontend developer, reducing agent training time by 40%.
- **Tech Stack:** React, TypeScript, OneApp Framework, WebRTC, Genesys Cloud SDK, AuthBlue SSO

American Express - Insights Dashboard (Dual Monitoring System)

- Developed comprehensive monitoring application with infrastructure health tracking (30-min intervals) and workforce analytics (daily ETL) for 30K+ agents.
- Built smart filtering system storing only problematic agents (200-500 out of 30K), reducing storage by 95% while maintaining real-time alerts via WebSocket.
- Implemented AWS Lambda job at 3 AM MST calculating productivity metrics with checkpoint recovery system for fault tolerance.
- **Tech Stack:** React, TypeScript, Node.js, PostgreSQL, AWS (RDS, Lambda), AuthBlue SSO

CourseKey - Payment Integration Module

- Developed frontend payment module for partial payments and installment plans with comprehensive invoice management.
- Built dynamic invoice generation with payment history, balance calculation, and customizable payment templates.
- Delivered critical features within tight 2-month timeline through effective sprint planning and team coordination.
- **Tech Stack:** React, JavaScript, REST APIs, Material-UI, Agile/Scrum

Red Carpet - Employee Management System

- Developed full-stack employee onboarding/offboarding tool with Google SSO authentication for domain restriction.
- Set up PostgreSQL RDS database with Sequelize ORM and documented APIs using Swagger.
- Created responsive UI for employee profiles, skills management, equipment tracking, and project assignments.
- **Tech Stack:** React, Material-UI, Node.js, Express.js, PostgreSQL, Sequelize, Google OAuth

TECHNICAL SKILLS

- **Languages:** JavaScript, TypeScript, HTML5, CSS3
- **Frontend:** ReactJS, NextJS, Redux, Material UI, Tailwind CSS, Micro Frontend Architecture
- **Backend:** NodeJS, Express.js, NestJS, RESTful API Design, Microservices
- **Cloud & Database:** AWS (S3, RDS, Lambda), PostgreSQL, MongoDB
- **Tools:** Git, GitHub, JIRA, Agile/Scrum, Docker, OAuth, JWT, Swagger

CERTIFICATIONS

- **Google Cloud Certified Associate Cloud Engineer** - Google Cloud Platform

EDUCATION

M.Sc. Information Technology *2021 - 2023* | *GLS University, Ahmedabad* | CGPA: 8.96
B.Sc. Computer Science *2018 - 2021* | *Narmada College, Bharuch* | CGPA: 8.09

ACHIEVEMENTS

- **Winner** - Smart India Hackathon 2022: Developed AI-based solution for interpreting doctors' handwritten notes using Deep Learning.
- **Runners-Up** - Azadi Ka Amrit Mahotsav Hackathon 2022: Built women's safety application for emergency assistance.