

# Sangam Shrestha

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## SUMMARY

Software Engineer with 4+ years of experience developing full-stack applications, designing scalable systems, and integrating APIs across enterprise and public sector projects. Proficient in Java, Spring Boot, .NET, and cloud platforms including AWS. Successfully built offline-first web apps and leading backend optimization efforts. Looking to contribute to software teams building reliable and maintainable applications.

## EDUCATION

### East Tennessee State University

*Aug 2023 - May 2025*

*Master of Science in Computer Science - 3.9 GPA*

## SKILLS

**Programming Languages:** Java, C#, SQL, TypeScript, JavaScript, C, C++, Python

**Cloud & Distributed Systems:** AWS (S3, EC2, CloudWatch, RDS, IAM), SaaS, Microservices

**Databases & Storage:** MySQL, SQL Server, PostgreSQL

**System Design & Performance:** Data Structures, Entity Relationships, Business Process Analysis

**Frameworks & Tools:** Spring Boot, Quarkus, .NET, Hibernate, Docker

**Testing & Quality:** Unit Testing, Integration Testing, Code Reviews

## EXPERIENCE

### Software Engineer

*June 2025- Present*

East Tennessee State University

*Johnson city, USA*

- Implemented a Progressive Web App (PWA) to digitize IEPs across 25+ schools, achieving a 99.9% uptime and enabling educators in low-connectivity regions to access crucial educational plans.
- Integrated Google Cloud Translation API to support bilingual workflows in English and Marshallese, improving accessibility for 10+ school administrators.
- Deployed the application using Docker and Docker Compose on AWS EC2, providing scalable infrastructure for production rollout.

### Graduate Teaching Assistant

*Aug 2023 - May 2025*

East Tennessee State University

*Johnson city, USA*

- Instructed 100+ undergraduates in programming fundamentals and advanced web development using C#, .NET Core, JavaScript, and HTML/CSS.
- Led weekly labs and code reviews, increasing student engagement by 42% and raising average performance from C- to B.
- Created reusable code samples and documentation to reinforce topics like MVC design, debugging, and version control.
- Mentored 3 new teaching assistants, standardizing support across multiple course sections.

### Software Engineer

*Nov 2018 - June 2023*

BMP Infology Pvt. Ltd.

*Kathmandu, Nepal*

- Developed a full-stack, cross-platform ERP system used by over 200 internal staff and clients, increasing user adoption by 60% within the first year.
- Migrated legacy infrastructure to AWS, reducing server costs by 25% and improving system response times by 40%.
- Engineered optimized SQL queries and modular API microservices, cutting data retrieval times from 15+ seconds to under 3 seconds for key real estate workflows.
- Designed and launched a modern UI using Material Design, improving system usability and reducing user training time by 50%.
- Conducted weekly QA audits and regression testing in agile sprints, reducing critical bugs in production releases by 30% quarter-over-quarter.

- Enabled the company to manage over 1,000 active property listings, 500+ transactions per month, and support a 2x growth in user traffic without system downtime.
- Implemented multilingual support across all pages using Angular's internationalization features, enabling real-time translation between English, Chinese, and Japanese, and improving accessibility for over 1,000 users.

## PROJECTS

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### Online Delivery Management System | [GitHub Link](#)

*Mar 2019 - Aug 2019*

- Engineered a full-stack delivery management platform, integrating the MapBox API for real-time routing and Dijkstra's algorithm for shortest-path calculations.
- Enhanced user authentication with a secure JWT-based system, ensuring data integrity.

### Predictive Model for Layoff Risk Assessment | [GitHub Link](#)

*Feb 2024 - Jun 2024*

- Achieved 93% accuracy on a machine learning model, comparing Logistic Regression and Decision Trees for layoff risk prediction.
- Identified tenure, employee performance score, and location as key demographic features impacting mass layoffs.

### Sentiment Analysis on Airline Reviews | [GitHub Link](#)

*Sep 2024 - Dec 2024*

- Preprocessed and analyzed 23,171 airline reviews, achieving 84% accuracy using Distill BERT for sentiment classification.
- Extracted actionable insights on airline performance by identifying key factors like seat type, value for money, and staff service driving customer sentiments.

## AWARDS / ACTIVITIES

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- **Academic Excellence Award** – Recognized for academic excellence and leadership. *Aug 2022*
- **Hack By Girls- Girls in ICT hackathon 2018** – Top 4 in hackathon after building a workable prototype for smart parking. *Apr 2018*
- **TechCamp Bootcamp** - Participated in technology & entrepreneurship workshops led by the U.S Embassy in Nepal. *Feb 2017(1-week)*