

Shubham Bansal

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SUMMARY

Full Stack Software Engineer with 4+ years of professional experience designing and developing scalable web platforms and distributed backend systems. Proven expertise in React.js, Spring Boot, and AWS, with end-to-end ownership of modern cloud-hosted applications. Skilled in translating Figma UI designs into responsive, animated interfaces and deploying secure, high-availability systems on AWS (S3, CloudFront, Lambda, Cognito). Adept in Agile teams and CI/CD pipelines, with a strong foundation in OAuth2, JWT, and microservices architecture. Recently completed an M.S. in Software Engineering from George Mason University. Passionate about delivering impactful digital experiences.

TECHNICAL SKILLS

Languages: Java, Python, JavaScript (ES6+), SQL, C#

Frontend: React.js, HTML5, CSS3, Figma-to-React Conversion, Responsive UI, Animation Libraries

Backend: Spring Boot, REST APIs, Microservices, ASP.NET, Node.js (basic)

Security & Auth: JWT, OAuth2, AWS IAM & Cognito, Role-Based Access Control

Cloud & DevOps: AWS (Lambda, EC2, S3, CloudFront, Route 53, RDS, Cognito), Docker, Kubernetes, GitHub Actions, GitLab CI/CD

Tools: Postman, JUnit, Git, Maven, Jenkins, CloudWatch, Figma

Databases: PostgreSQL, MySQL, DynamoDB

Architecture: Distributed Systems, Modular Components, API Design, TDD, Agile Scrum

WORK EXPERIENCE

Volunteer Research Assistant

George Mason University, VA

June 2025 – Present

- Specialized in cloud-native application development, CI/CD automation, and Kubernetes-based deployments.
- Completed projects leveraging AWS services (EC2, Lambda, RDS, Cognito) to design scalable, secure architectures.
- Developed React.js frontends with OAuth2/JWT-based authentication and integrated RESTful APIs.
- Built and deployed containerized applications using Docker and Kubernetes, automating deployments with GitLab CI/CD pipelines.
- Contributed as a Volunteer Research Assistant on the OffCampus Connect project—a GMU student platform for off-campus housing—building and maintaining a secure web app serving 100+ student users.
- Collaborated in Agile student teams of 4–6 members, delivering bi-weekly sprints with production-ready features.
- Focused on writing clean, maintainable code with 80%+ unit test coverage across backend services.

Software Engineer - Web Development

AcmeGrade, India

Aug 2023 – June 2025

- Developed and maintained over 25+ reusable React.js components for AcmeGrade's education platform, leading to a 40% reduction in development time for new pages and modules.
- Converted 15+ Figma design prototypes into responsive React interfaces with precision animations, improving visual consistency and boosting user session duration by 35%.
- Launched and managed AWS-hosted static web apps using S3, CloudFront, and Route 53, achieving 99.99% uptime and cutting page load times by 50% through optimized asset delivery.
- Designed and deployed scalable landing pages that supported 5X user traffic growth, contributing to a 28% increase in course sign-ups within 3 months of deployment.
- Engineered a modular component system using functional components and hooks, improving code maintainability and reducing tech debt by 30%.
- Implemented advanced animation flows using CSS and React libraries, increasing page engagement metrics and reducing bounce rate by 22%.
- Collaborated with a 5-member cross-functional team (design, marketing, and backend) in Agile sprints, delivering weekly production-ready builds and updates.

Software Engineer

Cognizant Technology Solutions, India

Sep 2021 – Jul 2023

- Contributed to the development of Spring Boot microservices for secure messaging and transaction modules, supporting high-volume internal traffic of 10K+ API calls/day.
- Assisted in refactoring legacy codebase from Scala to Java, resulting in a 25% improvement in backend response times and simplifying maintenance workflows.
- Participated in cloud migration of internal applications to AWS (EC2, RDS, Cognito), improving system scalability and reducing deployment setup time by 30%.
- Implemented and tested RESTful APIs used by 5+ internal teams, ensuring consistent performance and availability (>99.9% uptime).
- Integrated OAuth2 and JWT-based authentication mechanisms across services to enhance secure access control.
- Wrote unit and integration tests using JUnit and Postman, achieving 75%+ code coverage and reducing regression issues during releases.
- Worked in Agile sprints, participating in daily standups, code reviews, and backend design discussions with senior engineers.

Software Engineer Intern

Cognizant Technology Solutions, India

Jan 2021 – May 2021

- Created a secure role-based portal with ASP.NET, SQL Server, and JavaScript.
- Integrated backend logic for user access control and data visibility by roles.
- Supported post-release defect triage and delivered over 40 stable enhancements.

PROJECTS

Secure Housing Platform – AWS Full Stack App

Personal Project | 2025

- Built a full-stack platform with secure login using AWS Cognito, backend logic in Lambda, and storage in DynamoDB.
- Integrated authentication flows with JWT-based access control.
- Frontend built with React; optimized for mobile accessibility and cross-browser support.
- **Skills:** React, AWS Lambda, Cognito, API Gateway, S3, DynamoDB

Survey Microservices System – CI/CD + Kubernetes

George Mason University | Aug 2024 – Dec 2024

- Developed modular Spring Boot services deployed on Kubernetes.
- Secured endpoints and API interactions using token-based access.
- Integrated GitHub Actions for CI/CD and used RDS for persistent secure storage.

Distributed File Transfer System – Java Socket + RMI

George Mason University | Aug 2023 – Dec 2023

- Engineered a distributed system with Java RMI supporting resumable large file transfers.
- Employed multi-threaded socket programming for concurrent peer communication.
- **Skills:** Java, Threads, RMI, Secure Data Transfer Protocols

EDUCATION

George Mason University, VA — *Master of Science, Software Engineering*

August 2023 - May 2025 | GPA: 3.70/4.00

Relevant Courses: Distributed Systems, Web Security, Software Testing, Cloud Computing

SRM Institute of Science and Technology, India — *B.Tech, Computer Science*

July 2017 - June 2021 | GPA: 7.51/10.0

Relevant Courses: Operating Systems, Data Structures, Cryptography, Databases

CERTIFICATIONS

- AWS Certified Cloud Practitioner – *Foundational*