

Bhumika Agarwal

Software Developer

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EXPERIENCE

Software Engineer II

JP Morgan Chase & Co.

October 2024 - Present

Mumbai, Maharashtra

- **Increased API security and compliance by 35%** by securing REST endpoints with **Access Token validation and Role-based Entitlements**, ensuring robust authorization mechanisms and compliance with industry standards.
- Developed UI features on the trading screen using **React.js and Angular**, incorporating trader feedback to optimize user experience and enhance usability, leading to a **30%** improvement in trading efficiency.
- Enhanced code reliability by developing JUnit test cases, **increasing code coverage by more than 70%**.
- Optimized backend performance, **reducing critical FARM breaks by 40%** through efficient database queries, and fault-tolerant service design.

Junior Software Engineer

Cognizant

July 2022 - July 2024

Mumbai, Maharashtra

- Developed **Spring Boot REST APIs** for core banking modules, improving response times by **30%** through query optimization and pagination.
- Developed service and repository layers using **Spring Data JPA**, reducing boilerplate and increasing maintainability.
- Implemented **JWT authentication** and **Role-Based Access Control** to enhance security and compliance with financial standards.
- Achieved **90% unit test coverage** for assigned modules using **JUnit and Mockito**, reducing regression defects.
- Assisted in **API integration** with **React frontend** and collaborated with senior developers in an **Agile Scrum** team.

Software Engineer Trainee

Cognizant

Jan 2022 - June 2022

Remote

- Developed a comprehensive pharmaceutical benefit management system using a microservices architecture with **5 Spring Boot back-end services** and a **React 18 + TypeScript front-end**, improving modularity and maintainability by **40%** for training and evaluation.
- Implemented **JWT authentication** with 15-minute token expiration, **100%** real-time validation for usernames and emails, reducing failed registrations by **60%**.
- Designed and integrated **25+ REST APIs** for authentication, drug inventory, subscription, and refill management.
- Deployed to Render with Docker Compose, enabling **99.9% uptime** and seamless scaling across free-tier limitations. [Link](#)
- Authored **75+ pages of detailed technical documentation** covering deployment strategies, troubleshooting, and production readiness.

PROJECTS

Hospital Management System | *Java 17, Spring Boot, React, MySQL, GitHub*

[Link](#)

- Developed a **production-ready Hospital Management System** enabling **secure patient management, treatment planning, and insurance claim processing** for multi-specialty hospitals.
- Implemented **JWT-based authentication** and **role-based access control** (Patient, Doctor, Admin), ensuring robust security and compliance with healthcare standards.
- Designed **REST APIs with Spring Boot and Spring Data JPA**, **reducing API response time by 30%** through optimized queries and caching.
- Built **dynamic React dashboards with Material-UI and TypeScript**, improving user engagement and reducing navigation time by **25%**.
- Integrated insurance workflows with 10+ providers and automated claim initiation, reducing manual processing time by **40%**.
- Achieved **75%+ overall test coverage** using **JUnit 5 for unit and integration tests**, improving system reliability and maintainability.

Movie Review Platform <i>Java 17, Spring Boot, React, MongoDB, Github</i>	Link
<ul style="list-style-type: none">• Built a full-stack IMDb-style movie review platform with optimized backend and responsive UI.• Designed and deployed 15+ RESTful APIs using Spring Boot and MongoDB, improving data retrieval speed by 35% for large datasets.• Implemented JWT-based authentication with Role-Based Authentication, reducing unauthorized access attempts by 40% and ensuring secure session handling.• Developed a dynamic React 19 frontend using Material-UI and TypeScript, improving page load performance by 30%.• Integrated TMDb API & YouTube trailers, increasing user engagement by 50% through enriched content and seamless media experience.• Built a robust review system with ratings, comments, and helpful votes, boosting user interaction by 45% during beta testing.• Ensured 85% unit/integration test coverage using JUnit 5 and React Testing Library, improving system reliability and reducing post-release bugs by 35%.	

TECHNICAL SKILLS

Backend: Java, Spring Boot, MySQL, MongoDB, Maven
Frontend: HTML, CSS, JavaScript, React.js
Cloud Platforms: AWS
Architectures: MVC, Microservices
Version Control: Git, GitHub

EDUCATION

University of Petroleum and Energy Studies <i>Bachelor of Technology in Computer Science Engineering</i>	Dehradun, Uttarakhand <i>June 2018 - June 2022</i>
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