Amruthbalu M

Software Development Engineer

Kasavanahalli, Bengaluru, Karnataka, India, 560035

 8277271739 *| * [amruthbalum@outlook.com](mailto:amruthbalum@outlook.com) *| * [LinkedIn](https://www.linkedin.com/in/amruthbalu-m/) *| * [GitHub](https://github.com/Amruthbalu?tab=repositories)

# Education

**Bapuji Institute of Engineering and Technology Davanagere, Karnataka, India**

*Bachelor of Technology in Electronics and Communication Engineering; CGPA: 7.51/10 July 2018 – August 2022*

# Technical Skills

**Programming Languages**: Core Java, Python, HTML, CSS, JavaScript.

**Frameworks and DevOps**: Spring Boot, Git, JIRA, ReactJS, Docker, Kubernetes, Jenkins, Microsoft Azure.

**Cloud Computing**: Proficient in Azure services, cloud computing platforms, and cloud infrastructure.

**Database**: PostgreSQL, MySQL, Windows, Linux, GitHub Actions (CI/CD).

**Testing and Automation**: Selenium, Playwright, Opkey, Postman.

**Security**: Spring Security, OAuth2, JWT, secure microservices architecture, data encryption, and secure session management.

**Miscellaneous**: Data Structures and Algorithms, Object Oriented Programming, System Design, Analytical and Problem Solving.

# Professional Experience

**KPMG Global Services Bengaluru, Karnataka, India**

*Associate Consultant Oct 2024 - Present*

* **Architected and implemented microservices-based systems** using **Spring Boot & Netflix Eureka Service Registry**, enabling efficient service discovery, fault tolerance, and inter-service communication.
* **Integrated Kafka for event-driven messaging**, optimizing asynchronous data streaming, reliable message delivery, and real-time processing across distributed services.
* **Deployed and scaled applications in Microsoft Azure**, leveraging cloud-native solutions, Kubernetes-based container orchestration, and CI/CD pipelines for automated deployment.
* **Enhanced API security and access control** through advanced configurations in **Spring Security**, implementing JWT authentication, OAuth2 protocols, and fine-grained permission management.
* **Led Agile/Scrum-based development**, driving effective team collaboration and streamlining project execution using **JIRA and Confluence**, with a strong focus on **active engagement and detailed System Design documentation**, ultimately enhancing efficiency and optimizing project outcomes.

**KPMG Global Services Bengaluru, Karnataka, India**

*Analyst Nov 2022 - Oct 2024*

* **Developed and optimized scalable RESTful web services** using **Spring Boot**, implementing efficient request handling, exception management, and API versioning for seamless backend functionality.
* **Integrated role-based authentication and authorization** with **Spring Security**, ensuring secure access control and user management across various application modules.
* **Designed and optimized relational database schemas** using **MySQL & JPA/Hibernate**, implementing indexing, caching strategies, and query optimization for improved data retrieval and persistence.
* **Conducted rigorous API testing and validation** using **Postman**, automating test workflows, analyzing performance bottlenecks, and ensuring reliable system interactions.
* **Designed and developed over 800 automation test scripts** for **Oracle ERP, Finance, and HCM domains**, utilizing **Java-based automation tools** such as **Selenium, Playwright, and Opkey** to ensure **rigorous and efficient testing workflows**.
* Built an automated framework for the scheduled processes module in Oracle ERP, enabling automatic extraction of report parameters and significantly enhancing efficiency.
* **Designed and implemented a reusable code solution for the Data Management module**, streamlining **package imports into the Microsoft Dynamics application**, resulting in a **40% reduction in manual effort** and significantly improving operational efficiency.

# Projects

[**Microservices Architecture & Security Framework [](https://github.com/Amruthbalu/SpringBoot-Microservices)** *| Spring Boot, Spring Security, JWT, OAuth2, Key Cloak, Eureka*](https://github.com/Amruthbalu/SpringBoot-Microservices)

* **Designed and implemented a microservices architecture using Spring Boot**, enabling efficient inter-service communication with **Feign clients** and **Netflix Eureka for dynamic service discovery**.
* **Configured and deployed an API Gateway**, centralizing request routing and enforcing security measures to safeguard microservice endpoints.
* **Implemented robust authentication and authorization mechanisms**, integrating **JWT-based security** and **Spring Security 6** for service-to-service and client-to-service access control.
* **Enhanced security model with OAuth2 and Key Cloak**, streamlining authentication management, securing APIs, and ensuring scalable identity provider integration.

[**Online Bookstore using Spring Boot [](https://github.com/Amruthbalu/Online-Bookstore)** *| Spring Boot, Spring Security, Spring Data JPA, Eureka, My SQL, Swagger*](https://github.com/Amruthbalu/Online-Bookstore)

* **Developed a microservices-based Online Bookstore System** using **Spring Boot, Spring Cloud, Netflix Eureka, and Spring Security**, enabling dynamic service discovery, API Gateway routing, and secure user authentication.
* **Designed and implemented RESTful APIs** with **Swagger UI for documentation,** ensuring seamless inter-service communication and streamlined API exploration.
* **Integrated MySQL with JPA/Hibernate** for efficient data management, optimizing CRUD operations across **Book, Order, and Inventory services** while ensuring persistence and scalability.
* **Performed API testing with Postman** and deployed hosted documentation on **GitHub Pages**, improving reliability, debugging efficiency, and accessibility of technical resources.

[**Master DSA: Learning Platform [](https://github.com/Amruthbalu/Master-DSA-Learning-Platform)***| React, HTML, CSS, JavaScript, Router DOM*](https://github.com/Amruthbalu/Master-DSA-Learning-Platform)

* **Developed a React-based educational platform for Data Structures and Algorithms, utilizing React Router DOM for client-side routing and React hooks (UseState, UseEffect) for state and lifecycle management.**
* Implemented modular and reusable components for various DSA topics, structured with semantic **HTML5 tags and styled using Tailwind CSS** and custom CSS for a responsive, user-friendly interface.
* Enhanced user experience with dynamic animations and transitions using **Framer Motion**, ensuring smooth navigation and interactivity across the platform.
* Optimized performance and deployment using React Vite for fast builds and automated deployment to GitHub Pages with gh-pages.

# Certifications

* [Microsoft](https://www.credly.com/earner/earned/badge/8e97e26c-7dca-4011-a35b-fe35a047cbf4) Certified: Azure Fundamentals (AZ-900)
* Java Foundations Professional Certificate by JetBrains
* Microservices Foundations Professional Certificate by Kong
* ISTQB Certified: Foundation Level
* Digital and Data Foundations – Artificial Intelligence and Automation