Arsal Azam

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EDUCATION

Friedrich-Alexander University Erlangen-Nuremberg (FAU)

October 2023 - November 2025

Master in Artificial Intelligence

National University of Computer and Emerging Sciences (NUCES FAST)

Bachelor's, Computer Engineering

August 2016 - June 2020

German GPA: 1.4

PROFESSIONAL EXPERIENCE

Valeo Siemens Erlangen, Germany

August 2023 – Present

- Develop and maintain Java-based applications to synchronize signal data across multiple software platforms, ensuring data integrity.
- Utilize Polarion and ADD tools to gather and manage signal data, enhancing data workflows and operational efficiency.
- Wrote and maintained unit and integration tests in Java to validate backend functionalities, ensuring high code quality and performance.
- Utilized Maven for project management and build automation, streamlining the build process and managing dependencies efficiently.
- Successfully implemented a synchronization solution that improved data accuracy across platforms, reducing data discrepancies by 30%.
- Enhanced data retrieval speed by optimizing Java code, leading to a 20% reduction in processing time.
- Participated in the migration of legacy systems to updated platforms, ensuring minimal downtime and improved performance.

Educative Washington, USA

Software Engineer

Software Engineer

February 2021 - October 2022

- Developed front-end components using React and TypeScript to enhance the user interface and improve the user experience of the product.
- Implemented Redis as an in-memory data structure store, optimizing data retrieval and storage efficiency.
- Utilized Python for backend logic and data processing in interactive coding environments.
- Automated tests using the Selenium framework to simulate user interactions with web applications, ensuring robust testing.
- Dockerized the Django backend to maintain a consistent development environment, facilitating smoother deployments and development.
- Worked extensively with Recommender Systems, Data Accumulation, Data Cleaning, and Web Automation, implementing collaborative filtering algorithms to improve data handling and system automation.
- Designed and architected the backend systems using Django, ensuring scalable and maintainable software solutions.
- · Developed and deployed Azure Functions for serverless applications, integrating them with Azure Logic Apps for workflow automation.
- Designed and implemented a highly available and scalable web application using EC2, S3, RDS, and Elastic Load Balancing.
- Utilized Agile methodologies, including Scrum, to deliver working software increments in iterative sprints.
- Optimized application performance for cloud computing by implementing caching strategies
- · Improved data handling and system automation processes, leading to more accurate and efficient data processing and analysis.

I2C Lahore, Pakistan

Software Engineer

July 2020 – February 2021

- Developed robust and scalable software applications using Java and Spring Boot, adhering to best practices and coding standards.
- Implemented RESTful APIs and utilized Spring Boot's features for building microservices, facilitating seamless integration and communication between different components.
- Utilized Spring Data JPA to interact with databases, ensuring efficient data access and manipulation within the applications.
- Implemented unit tests and participated in code reviews to maintain code quality, identify potential issues, and ensure overall software reliability.
- Actively contributed to continuous integration and continuous deployment (CI/CD) processes, utilizing tools such as Jenkins or GitLab CI/CD to automate build, test, and deployment pipelines.
- Developed and deployed a suite of microservices using Spring Boot, improving the modularity and scalability of the application architecture.
- · Streamlined database interactions using Spring Data JPA, resulting in more efficient data access and manipulation.
- Improved the development workflow by actively contributing to CI/CD processes, leading to faster and more reliable deployments.

PROJECTS

AI in Legal Linguistics: Knowledge Representation and Reasoning

Erlangen, Germany

Research Assistant and Software Engineer

August 2024 - March 2025

- Applied Legal Linguistic Templates (LLTs) to formalize legal texts for automated reasoning.
- Utilized LegAi editor to annotate legal documents, creating legal knowledge bases (e.g., for GDPR).
- Contributed to reverse translation methodology for validating legal formalizations.
- Analyzed legal texts to extract vocabulary and LLTs for AI processing.
- Gained experience in legal informatics principles, including legal knowledge representation and DSL development.

SKILLS

Skills: Next.js, Node.js, AWS, Babel, Bash, Bootstrap, Django, Docker, Google Cloud Platform, Java, Springboot, JavaScript, jQuery, Git, HTML/CSS, Kotlin, PowerShell, MongoDB, MySQL, Python NLTK, Postgres, Postman, React.js, Python, UI/UX Design, Vue.js, Web Development, NoSQL, FastAPI, Firebase, Netlify, Vercel, Express.js, Redux.js, BigQuery, Agile, Communications, Computer Networking, Stripe, Socket.io, Software Testing, TypeScript, Strapi, SQL, Websockets, Tailwind CSS, Vite, C, C++, C#, Microsoft SQL Server, ASP.NET MVC, Assembly