Ashwin Kumar Tiruvenkatapuram Koteeswaran

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Full-stack developer with 4+ years of hands-on experience in development using modern technologies.

Professional Experience

IT Developer Jan 2024 – Mar 2025
Canada Revenue Agency Canada

Tech Stack: Angular, RxJS, JavaScript, TypeScript, Spring Boot, Java, HTTP, REST API, Maven, JUnit 5, Mockito

- Contributed to modernizing legacy modules in the CRA My Account portal using **Angular** and **Spring Boot**.
- Utilized **HTTP** services to refactor **REST APIs** and integrate **UI** with the **backend**, for seamless data exchange.
- Automated log monitoring using regex **search algorithm**, reducing response time from **1 hour to 5 minutes**
- Resolved taxpayer-reported complex bugs on the portal, prioritizing based on severity using the Remedy system
- Supported two junior developers through **GIT** code reviews, weekly retrospectives, and **Agile** sprint planning.

Secure Portal Re-engineering
Canada Revenue Agency - Key Project

- Refactored 20+ CRA portal features into reusable Angular components, using lazy loading, **Redux**, and **routers**.
- Refactored 70+ Spring Boot APIs using **data structures**, **Java Streams**, **Lambda expressions**, and Hibernate.
- Integrated SonarQube with **Jenkins CI/CD** to enforce code quality, reducing technical debt by 70%.
- Implemented role-based access control (RBAC) using Spring Security with **OAuth2** and **JWT** for secure API.

Software Developer Intern – Research Project Mar 2022 – Mar 2023
Eotvos Lorand University Hungary

Tech Stack: Node.js, Express.js, GraphQL, PostgreSQL, Kore.ai, Azure PaaS, Google Cloud Speech APIs

- Designed a scalable, **microservices-based backend architecture** for appointment booking and cancellations.
- leveraging Kore.ai and **Google Speech APIs** using **system design** practices for availability and modularity.
- Developed backend services using **Node.js** and Express.js, applying **OOP principles** to enhance code reusability.
- Optimized data storage using **PostgreSQL** with indexing and query optimization, improving data retrieval speed.

Web Developer Mar 2018 – Dec 2019
Technorate R&D Association India

Tech Stack: React, Redux, MongoDB, JWT, RabbitMQ, AWS EC2, S3, Docker, CloudWatch

- Developed interactive admin dashboards using **React** and **Redux** for real-time data management.
- Collaborated in optimizing data handling by using **MongoDB** aggregation pipelines for faster queries.
- Implemented asynchronous processing with **RabbitMQ** message queues, improving data flow and system coupling.
- Deployed applications on **AWS EC2**, configured **S3** for file storage, and set up **CloudWatch** for monitoring.

Skills

Languages: JavaScript, TypeScript, Java, Python, HTML5, CSS, JSON
Frontend: React, Angular, Redux, RxJS, Next.js, Tailwind CSS
Backend: Node.js, Express.js, Spring Boot, REST APIs, GraphQL
Databases: MongoDB, PostgreSQL, SQL Server, Azure SQL, Redis
Cloud & DevOps: Azure, AWS, GCP, Docker, Kubernetes, Jenkins
Tools: RabbitMQ, Kafka, Swagger, Git, Jira

Certifications

AWS Certified Cloud Practitioner (CLF-C02)
Azure Fundamentals (AZ-900)

Education

Master's in Informatics — Hungary
Etovos Lorand University — Feb 2020 – Mar 2023

Bachelors in Computer Science — Hungary
Dr M.G.R University and Research Institute — Mar 2014 – Mar 2018

Own Projects

CI/CD Automation Framework

Project: A CI/CD pipeline to automate build, test, scan, and deployment processes.

Tech Stack: GitLab CI/CD, Jenkins, Docker, SonarQube, Azure DevOps, Jest, Selenium, Slack

- Built a CI/CD pipeline to automate build, test, and deployment processes,reducing manual intervention.
- Integrated Slack notifications to automate approvals and streamline release workflows, improving communication.

Enterprise Credit Risk

Project: Microservices to evaluate credit risk and manage decision workflows.

Tech Stack: Java 17, Spring Boot, Spring Security, Hibernate, PostgreSQL, Kafka, Docker, JUnit, Azure

- Developed Spring Boot microservices with REST APIs to assess credit risk, streamlining decision-making workflows.
- Optimized data processing using Hibernate and SQL indexing to handle high-throughput environments efficiently.

Customer Data Classification & Clustering

Project: An ML solution to classify customers and analyze data clusters.

Tech Stack: Python, Pandas, Django, Scikit-Learn, KMeans, PCA, Random Forest, Azure Storage, SQL Server

- Built ML models (Logistic Regression, Random Forest) for customer classification, achieving 84% accurac.
- Integrated Azure Storage and SQL Server for secure data management, visualizing insights using Pandas, Seaborn.