

# ABINESH THAVENTHIRARAJAH

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🐙 GitHub • 🔗 LinkedIn • 🌐 Portfolio

Software Engineer with 2 years of industry experience developing scalable backend systems using Java and Spring Boot. Experienced in designing REST APIs, optimizing database performance, and modernizing legacy systems. Graduated in Computer Science and Engineering from the University of Moratuwa. Seeking opportunities to build reliable, high-impact backend systems and deepen expertise in scalable architecture.

## EDUCATION

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**University Of Moratuwa** 2020 Jan - 2024 Jun  
BSc. Eng. (Hons.) in Computer Science and Engineering - CGPA : 3.78

**J/Hartley College** 2010 Jan - 2018 Aug  
Advanced Level: Physical Science, 2A,B Island Rank - 191

## EXPERIENCE

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**Software Engineer** 2024 Jun - Present

**Cloud Solutions International**

- Re-architected the pharmacy module backend using Spring Boot to support a new UI platform. Designed a unified order contract, standardized REST APIs, optimized database queries, implemented a Backend-for-Frontend (BFF) layer, and developed data migration scripts to ensure a smooth transition from the legacy system.
- Researched and implemented strategies for improving system scalability and resilience using Kafka and Kubernetes.
- Designed and developed a reusable tool in Django to handle structured export/import operations across environments, ensuring data integrity, validation, and rollback support.
- Built a mock server to simulate NPHIES API interactions, enabling faster development and integration testing without dependency on external systems.

**Machine Learning Engineering - Intern** 2023 Jan - 2023 Jun

**Insighture**

- Developed NLP pipelines using SpaCy for Named Entity Recognition (NER) and Hugging Face Transformers for Question Answering models.
- Built multi-label and multi-class classification models using PyTorch for text analysis tasks.
- Experimented with Large Language Models (LLMs) and implemented vector datastore-based approaches to address token limitation challenges.
- Conducted research on time-series forecasting and anomaly detection techniques.

**Visiting Teaching Assistant - CS1033** 2023 Aug- 2023 Oct

**Department of Computer Science and Engineering | University of Moratuwa**

- Supported the CS1033 – Programming Fundamentals course by mentoring students in lab sessions and helping design programming exercises.

**Research Assistant** 2022 Jan - 2022 Mar

**Aaivu Organization**

- Contributed to an open-source initiative focused on building Natural Language Processing (NLP) solutions.
- Helped transform the organization's static website into a dynamic platform to improve usability and content management.
- Participated in NLP research and contributed to supporting development tasks.

## SKILLS

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<b>Backend Development</b>	Java   Python   OOP   Spring Boot   Django   REST APIs   Microservices   BFF
<b>DevOps &amp; Cloud</b>	Docker   Kubernetes   ArgoCD   Jenkins   AWS (Basics)   CI/CD   NGINX
<b>Databases</b>	PostgreSQL   Oracle   Liquibase   SQL Query Optimization   Redis
<b>Distributed Systems</b>	Apache Kafka   API Gateway Patterns   Elastic APM
<b>Testing &amp; Tools</b>	Git   Linux   Testcontainers   JUnit   Mockito
<b>Data Science &amp; ML</b>	PyTorch   NLP   Machine Learning   Deep Learning   Computer Vision

## PROJECTS

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### Pharmacy Module Revamp

2024 Dec - Present

**Technologies:** [Spring Boot](#), [Java](#), [REST APIs](#), [PostgreSQL](#), [Oracle](#), [Liquibase](#), [Microservices](#), [Docker](#), [Kubernetes](#)

Developed backend features in Spring Boot to modernize the pharmacy module, including a unified order contract, optimized queries, standardized REST APIs, and data migration scripts for a smooth legacy transition.

### In-Air Signature

2023 Jul - 2024 May

**Technologies:** [Python](#), [Computer Vision](#), [Leap Motion Controller](#), [Unity](#), [Google Mediapipe](#)

Final Year R&D Project, Developing an innovative in-air signature authentication system addressing Intermittent Spatial Segmentation challenges (Handling Non-continuous signatures). Utilizing 2D and 3D camera approaches, creating an in-house dataset for model development.

### Resume.AI

2023 Jan - 2023 Mar

**Technologies:** [Python](#), [PyTorch](#), [NLP](#), [HuggingFace](#), [SpaCy](#), [LLM](#), [Langchain](#), [Pinecone](#), [GPT models](#), [Streamlit](#)

Developed an NLP-based automated resume parser designed to extract relevant candidate information, predict suitable job roles and tech stacks, and effectively rank candidates' resumes.

### Interactive Dashboard with Churn prediction

2022 May - 2022 Aug

**Technologies :** [Tableau](#), [Flask](#), [ReactJS](#), [Python](#) , [pandas](#), [NumPy](#), [Scikit-learn](#)

Created an interactive dashboard using Tableau with the telecom customer churn data and built a model which can predict a specific customer is churn or not.

### Single Vendor E-Commerce Platform

2022 Apr - 2022 Aug

**Technologies :** [ReactJS](#), [NodeJS](#), [ExpressJS](#), [MySQL](#)

Developed a Single vendor E-Commerce system where users can buy electronic items. Here I had worked as full-stack developer.

## HONORS & AWARDS

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**Dean's List** - 1st, 2nd, 3rd, 4th and 8th semester

**Merit Award - National ICT Awards 2024**

Recognized at the National Best Quality ICT Awards for developing InAirSignature, an innovative in-air signature identification and verification system using 2D/3D real-time hand movement analysis.

## RELEVANT ACADEMICS

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Data Structures and Algorithms : A+  
Object-Oriented Programming : A  
Graph Theory for Computing : A  
Programming Fundamentals : A+

Machine Learning : A-  
Deep Neural Networks : A  
Computer Vision : A+  
Big Data Analytics : A

Operating Systems : A  
Database Systems : A  
Applied Statistics : A  
Linear Algebra : A+

## EXTRACURRICULAR/VOLUNTEER ACTIVITIES

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**Department Representative** - Dept of Computer Science and Engineering 2023 Sep - 2024 Jun

**Secretary - Tamil Literary Association** - University of Moratuwa 2023 Sep - 2024 Jun

**Chess team - Member, Captain** - Won provincial champion for 7 years in a row 2013 - 2019

**Senior Prefect** - Hartley College 2016 - 2018

**National Sports Festival** - Member of Nothern Province chess team 2019

**International Rated Chess Player** - Have an international rating of 1640 2016

## REFERENCE

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**Dr. Adeesha Wijayasiri**

Senior Lecturer

Department of Computer Science and Engineering, University of Moratuwa, adeeshaw@cse.mrt.ac.lk