JAYANGA PALIHENA

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EDUCATION

Nanjing University of Information Science and Technology, China | 2022 - 2024
MSc in Artificial Intelligence

University of Plymouth, UK | 2017 - 2020
BSc (Hons) Software Engineering
- *Awarded - First Class Honors*
- *Aggregate Final Mark: 77.19 (GPA-4.0)*

ESOFT Metro Campus, Sri Lanka | 2018 - 2019
Diploma in Web Engineering
- *Offered by Pearson*

St. Nicholas International College, Sri Lanka | 2016
Cambridge GCE AS Level

St. Nicholas International College, Sri Lanka | 2014
Cambridge GCE Ordinary Level

WORK EXPERIENCE

Nanjing University of Information Science and Technology – Nanjing, China | **Research Analyst in AI** | Jan 2025 – July 2025

- Conducted research on AI-based medical imaging analysis, focusing on histopathology and prostate cancer grading.
- Worked with deep learning models such as UNet and SegGini for weakly supervised semantic segmentation of whole-slide images.
- reprocessed large-scale histology datasets (.mrxs format) and implemented pipeline components for tile selection, annotation, and training.
- Evaluated segmentation and classification performance using metrics like Dice score, accuracy, and per-class analysis.
- Integrated RabbitMQ, ActiveMQ, and Apache Kafka for messaging, queuing, and data streaming solutions.
- Collaborated with supervisors and domain experts to integrate AI techniques into clinical research workflows.

Axiata Digital Labs - Sri Lanka | **Senior Software Engineer** | Apr 2023 - Nov 2024

- Developed and maintained telecom applications including NCell DMS (Distribution Management System), NCell PG (Payment Gateway), and Dialog StarPoints, by designing and implementing Java Spring Boot-based backend services using microservices architecture and deploying them as cloud-hosted REST APIs to ensure scalability and high availability. Developed applications using Java Spring Boot within a cloud-hosted, web-based microservices architecture.
- Worked with multiple databases including Oracle SQL, PostgreSQL, and Microsoft SQL Server.
- Deployed services in a Kubernetes and Docker cluster environment, enabling efficient containerized application management.
- Utilized Kibana and Grafana for real-time system monitoring, log analysis, and debugging of production issues.
- Integrated RabbitMQ, ActiveMQ, and Apache Kafka for messaging, queuing, and data streaming solutions.
- Analyzed, implemented, and deployed new Customer Requirements (CRs) across multiple systems, ensuring alignment with business needs, seamless integration with existing services, and minimal disruption to production environments.
- Provided Level 3 support for business-critical telecom and fintech applications, ensuring minimal downtime and optimal performance.
- Managed customer interactions by addressing technical concerns, gathering feedback, and resolving issues in line with SLAs.
- Conducted training sessions for team members on system usage and troubleshooting to ensure smooth transitions and maximize operational efficiency.
- Analyzed distribution metrics to drive continuous improvement and enhance overall customer experience.
- Delivered Knowledge Transfer (KT) sessions to share system overviews and ensure smooth onboarding for new team members

Axiata Digital Labs - Sri Lanka | **Software Engineer** | Aug 2021 - Mar 2023

- Contributed to the development of NCell Payment Gateway (PG) and Dialog DMS (Distribution Management System) as part of the backend and integration teams.
- Gained hands-on experience with Java Spring Boot, including Spring Security, Spring Data JPA, Spring MVC, and Spring Cloud, through self-learning and project work.

- Worked on frontend development using Angular, contributing to feature implementation and UI enhancements.
- Developed modules using ASP.NET and ASP.NET Core within the Dialog DMS project, handling both backend logic and service integration.
- Handled database components such as stored procedures, views, and triggers across Oracle, PostgreSQL, and SQL Server environments.
- Managed server deployments and configurations in Linux environments, including application hosting, log monitoring, and basic shell scripting.
- Participated in smaller-scale projects using Python, contributing to automation scripts and backend service tasks.
- Provided timely responses to business support requests and user inquiries, delivering support in alignment with established SLAs.

Centre for Defence Research & Development, Ministry of Defence - Sri Lanka | **Software Engineer/ Research Officer** | **Apr 2021 - Aug 2021**

- Developed and maintained the Performance Monitoring and Fault Management (PMFM) System using the PHP Laravel framework, implementing backend functionalities including CRUD operations, email handling, file upload and storage, authentication management, and server configuration. Utilized MySQL for database management, Laravel's built-in email and auth features, and handled deployment and hosting.
- Developed the Foreigner Safety Management System, a PHP Laravel-based web application featuring CRUD operations and real-time tracking functionalities using location-based services. Leveraged MySQL and MongoDB for data management, integrated Google Location APIs, and handled server hosting and deployment.

Centre for Defence Research & Development, Ministry of Defence - Sri Lanka | **Software Engineering Intern** | **Sep 2020 - Mar 2021**

- Developed Designed and developed a comprehensive Android application using Java and the Android SDK to analyze bullet impact images and accurately calculate the angle of incidence.
- Utilized SQLite for local data storage and built the application to support forensic investigations.
- Delivered to the Sri Lanka Police for field implementation upon successful development, testing, and validation.
- Publication (Elsevier): https://authors.elsevier.com/c/1dVKI9UFWMsVTm

Freelance Graphic Designer | **2017 - Present**

- Worked with diverse local businesses, YouTube channels, and international clients on graphic design and video editing projects.
- Delivered creative solutions for branding, social media, promotional content, and visual storytelling.
- Proficient in Adobe Photoshop, Illustrator, Premiere Pro, and After Effects to produce high-quality visuals tailored to client needs.

PROJECTS

Carbon Footprint Management System

- Developed for JAT Holdings (Pvt) Ltd. using PHP Laravel, Bootstrap, jQuery, and MySQL.
- Designed to streamline data entry, calculation, and reporting of carbon emissions for organizational sustainability tracking.
- Key features included basic CRUD operations, automated report generation, and a dashboard interface for real-time monitoring and analysis.

RESTful API

- Developed a RESTful API using ASP.NET Core and SQL to support both web and mobile client applications as part of the final year Bachelor's project.
- The web client was built with ASP.NET MVC and C#, while the mobile client was developed using Android Studio with Java.
- Utilized technologies such as ASP.NET Core, SQL, Java, Bootstrap, Node.js, and C# to deliver a multi-platform solution.

#Find - Predict Social Media Hashtags

- Designed a deep learning and computer vision model combining CNN and LSTM architectures to classify video clips and predict relevant hashtags.
- Trained on a modified UCF101 dataset enriched with web-scraped hashtags, effectively capturing visual-temporal patterns for accurate tag generation.
- Applied hyperparameter tuning and regularization techniques to improve model performance and ensure better generalization across unseen data.
- Publication (ijsred): http://www.ijsred.com/volume7-issue2-part16.html

SKILLS

- **Languages**: Java, Python, C#, PHP

- **Frameworks**: Spring, Spring Boot, Laravel, ASP.NET Framework, Angular, Spring MVC, Spring Data JPA

- **Web Technologies**: HTML, CSS, JavaScript, Thymeleaf

- **APIs**: REST, Microservices, SOAP(Basics)

- **Databases**: MySQL, MongoDB, OracleSQL, Microsoft SQL Server, PostgreSQL, SQLite, SQL, Firebase

- **Version Control**: Git, GitLab

- **Build Tools**: Maven, Gradle

- **DevOps & Tools:** Docker, Kubernetes, Jenkins, Grafana, Kibana, Postman, Swagger, Apache Kafka, RabbitMQ, ALDON, Windows System Administration

- **Servers**: Apache Tomcat

- **Others**: JUnit, Docker (Basics), Kubernetes (Basics), Grafana, Mockito

- **Cloud**: Google Cloud

- **AI Development**: TensorFlow, PyTorch, Keras, OpenCV, scikit-learn, NumPy, Pandas, Matplotlib, Qdrant, OpenAI, Olama, Anthropic, Machine Learning, Deep Learning

- **Project Management Tools**: JIRA, Grafana, Kibana Logs

- **Soft Skills**: Agile, Scrum, Team Work, Customer Management, Customer Engagement, Critical Thinking, Project Management, Problem Solving, Time Management, Quick Learning, Good Communication, Adaptability, Creative Thinking, SLA Management

REFERENCES

References available upon request