# **ASHENIKA PERERA**

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Portfolio



# SENIOR SOFTWARE ENGINEER / FULL STACK ENGINEER / BACK END ENGINEER / FRONT END ENGINEER / DATA ENGINEER / DATA SCIENTIST

Experienced Software Engineering professional with 6 years of expertise on software solutioning. Highly motivated and self-driven while continuously adapting to new technologies and industry trends. Dedicated to delivering high-quality results and thrive in collaborative Agile team environments.

#### **WORK EXPERIENCE**

# - Software Engineer - Wiley Global Technologies mthree Academy - https://academy.mthree.com

June 2021 - Present

- Mainly focused on Moodle (PHP) development, JavaScript, AWS, technical expertise solutioning in an Agile environment.
- Transition Management, Technical ownership of the project with new process
- Engineering Best Practices Reduce 5% AWS RDS cost by offloading Moodle logs, Coding Standards and Quality code, Git Hooks and PR Templates, Agile Practices, Unit test coverage of more than 75% of the code.
- Lower environment deployments with AWS, Terraform, Ansible, Jenkins, GitHub Actions
- A Technological expert in user support and maintenance with outstanding Communication skills to clarify the requirements and give technical advices.
- SSO and Salesforce Integration with other team collaborations.

# **The Learning Platform**

• GitHub Classroom Integration. Used automated code analysis, automated grading with unit test results for different languages (Python, C#, Java). LMS Integration with Web Services.

## Video Rendition Platform for Moodle using CloudFront and S3

- Developed a Video Rendition Platform for Moodle using AWS S3 and CloudFront, ensuring secure and optimized media delivery.
- Successful Brightcove video migration using syndication APIs and Python and boto3 (AWS SDK)

## **REX, SSPR, Author Services Data Engineering Pipelines**

- Worked in multiple Data Engineering pipelines, leveraging tools and technologies such as AWS Glue, Snowflake, Python, SQL, Power Bi and both ELT and ETL processes.
- Demonstrated the ability to learn new tools and domain-specific requirements rapidly, becoming a learning champion in Data Engineering technologies and consistently delivering efficient and scalable solutions.
- Properly organized work style that enables the efficient design and development of software solutions, data pipelines ensuring scalability and alignment with project goals and timelines.

# - Associate Software Developer - Zligger.com

Jan 2020 - Nov 2020

# UStore - https://www.ustore.lk/

• Designing and implementation of an E-Commerce Website using Shopify E-Commerce Platform. Technologies used: Shopify, Liquid, UI/UX, Javascript, PHP Webservice, HTML5, CSS3

#### **Green Cart**

• Learned Opencart in a short period of time and implemented the requirement ensuring UI UX in E-Commerce.

#### **Lean CRM**

- A system that automates manufacturing procedures focused on Lean Manufacturing Technologies and SCM, which can identify the true demand of the customer.
- Technologies used: Laravel, Lean Manufacturing, CRM, AngularJS, Android, Retrofit, Google Assistant, Dialogflow, Viber API, Google Calendar Integration

#### **Smart Label**

- Designing and implementation of automating the manufacturing procedures of a company.
- Technologies used: PHP, Laravel, Web Service, Angular JS,UI UX

#### **OLead App**

- A sub project of Lean CRM which manages the procedure of Customer Requirement.
- Technologies used: PHP, Laravel, Android, Retrofit, Angular JS,UI UX, Lean Manufacturing,
   CRM

# Software Engineer Intern - OREL Corporation

Sep 2017 - Sep 2018

#### **OHome**

- A Home Automation System that aims to develop a new range of switches and sockets which can be controlled by mobile app and a connected device.
- Technologies used: Android, MQTT, Arduino, IOT, Java, Electronics, Python, PySerial, Scikitlearn, Plotly and matplotlib

### Beacon Locator app

- A Beacon Locator app which can detect a Bluetooth beacon. It is an offline map location detector.
- Technologies used: Android, MQTT, Bluetooth Beacon, IOT, Java, Electronics

## **SKILLS SUMMARY**

#### **Software Engineering**

Software Solutioning, Problem Solving, Software Testing, Unit Testing, Object Oriented Design, AGILE, Full Stack Development, Data Science, Machine Learning, Customer Relationship Management, MVC, Database systems, Service Oriented Architecture, IoT

### **Languages and Frameworks**

PHP, HTML, CSS, CSS3, JavaScript, TypeScript, Laravel, Codeignitor, Moodle, Python, Java, JavaFX, Android, Angular, C#.NET, BackboneJS, React Native, NodeJS, Heroku, Retrofit, Shopify, XML, JSON, YAML

#### Other

- Docker, Rancher, CI/CD, Jenkins, AWS, Dynatrace, Kafka, Kubernetes, Azure AD, Terraform, Cloudfront, AWS Glue
- Social Media analysis, Geo-Spatial Analysis, OpenCV, Real time image processing, Dialogflow, RAG LLM, Ollama
- GIT, GitLab, GitHub, GitHooks, PR, Code Reviews
- Linux, Windows, VMWare, VirtualBox, Kali Linux
- Tableau, PowerBi JIRA, Office365, UI-UX, Confluence, UML, Lucid Charts
- PHP Storm, IntelliJ, Android Studio, NetBeans, Eclipse
- MQTT, RabbitMQ, ViberAPI, TwitterAPI, Postman, Elasticsearch, SSO, Salesforce, LinkedIn Learning LTI, Snowflake
- Teamwork, Scrum AGILE, Team coordination, Engineering Best Practices, Coding Standards, Code Review Best Practices, Stakeholder Coordination, Release and maintenance process, Transition Management, AWS Cost reduction, Moodle Log Offloading

#### DBMS, and Web Servers

SQL, Postgresql, MySQL, Oracle 11g, nginx, Apache, AWS DMS Service

# **EDUCATION** (Refer LinkedIn Profile for certifications)

#### Master of Science in Data Science - Graduated

Jun 2023 - Feb 2025

UCardiff Metropolitan University UK - ICBT Sri Lanka (*Distinction* | *Gold Medal*)

 Thesis on "A Predictive Model for Forecasting Coconut Farmgate Prices in Sri Lanka Using Advanced Time Series Models"

Bachelor of Engineering (Hons) in Software Engineering - Graduated

University of Westminster UK - IIT SL (Second Upper Hons)

• Thesis on "A Machine Learning approach for identifying Ostealgia using Image processing".

#### **RESEARCHES**

# A Predictive Model for Forecasting Coconut Farmgate Prices in Sri Lanka Using Advanced Time Series Models

Description: Implement an accurate forecasting model for coconut farmgate prices using advanced time series models while investigating the relationship between coconut farmgate prices and multiple external factors.

# Geospatial and Data-Driven Strategies for Enhancing Solar Panel Adoption and Service Optimization in Sri Lanka

Description: Leverage geospatial analysis and data science techniques to optimize solar panel adoption, site suitability for new branches, marketing strategies, and route planning, contributing to sustainable energy growth and cost reduction in Sri Lanka.

# A Machine Learning approach for identifying Ostealgia using Image processing

Description: A study of a prediction to analyze the beginning stage of Ostealgia on the patient's side by utilizing external systems of different Ostealgia diseases. And the probability of a fracture is determined by getting BMD (Bone Mineral Density) value from creating a Synthetic X-Ray of a hand image.

 Technologies and Methods Used: Python, Random Forest Classification, Machine Learning, Image Processing, Bone Mineral Densitometry Algorithms Skeletonization, Image Feature Detection

# **Smart Tooth Detector**

Description: This project investigates a smart tooth detector which enables to detect cavities of teeth.

 Technologies and Methods Used: Python, Android, OpenCV, Real time Image and Videoprocessing, VPS cloud server database system, IOT, Electronics

# **OTHER PROJECTS**

#### **Predictive Social Media Dashboard for Organization**

A Predictive dashboard for selected organization (Netflix). Created for MSC DS assignment.

• Technologies used: Web Scraping, Youtube API, Python, Postgresql, nginx and related python packages, JSON.

### **Predictive Geo-Spatial Dashboard for Selected Event**

A predictive geo-spatial dashboard for selected event (Kuweni Event). Created for MSC DS CW

Technologies used: Web Scraping, Python, nginx, docker, related python packages, JSON

References available upon request.

I hereby Certify above details are correct and true.

Ashenika Perera