

SHANEL SILVA

Software Engineer

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TECHNICAL EXPERIENCE

Associate Software Engineer

IFS R&D International Pvt. Ltd

July 2023 – Ongoing Sri Lanka

IFS Field Service Application (IFS FSM)

- Played a key role in developing the IFS FSM application, a full-stack .NET and C solution encompassing both back-end and web client components.
- Focused primarily on web client development using Angular for the front end and ASP.NET Core for the back end.
- Actively contributed to team discussions, code reviews, and agile development processes, demonstrating a commitment to continuous improvement.
- Gained valuable exposure to industry-standard technologies and practices, aligning skills with current market demands.
- Explored advanced C# concepts, including reflection, to dynamically examine and modify program structures at runtime, demonstrating a thirst for knowledge and problem-solving capabilities.
- Mastered Angular development, working extensively with the Redux library to manage application state and optimize component communication. Worked with concepts such as Components, Directives, Dependency Injection, Routing, RxJS, Change Detection etc.
- Proficiency in employing agile methodologies and adhering to the 7-stage development process (7SDC) to ensure efficient project delivery.

ERP experience (IFS Cloud)

- In my time working with IFS Cloud, I went beyond core development and explored some of its more intricate functionalities. I have gotten involved in customizing workflows for tasks like order fulfillment or inventory management through Business Process Automation (BPA). Ensuring data accuracy across departments likely involved me in Master Data Management (MDM), where I have worked on synchronizing information between different IFS Cloud modules. Additionally, IFS Cloud offers advanced inventory management techniques, such as multi-warehouse management or serialized inventory, and I have customized some of these features to meet specific needs. The financial side of things wasn't out of reach either. I have been involved in configuring reports for financial consolidation or even integrating them with external systems. Finally, my experience with IFS Cloud might have extended to building or maintaining advanced integrations with other enterprise systems like CRM or PLM using APIs.

Angular C# ASP.NET SQL OData Marble
Procedural Programming ERP Software
Oracle ERP Cloud IFS ERP Oracle Database
Jenkins PL/SQL Microsoft SQL Server
.NET Framework Java

ABOUT ME

I am a self-motivated, energetic, and inquisitive individual with a passion for learning emerging technologies. I am adaptable to dynamic work environments, have fast learning abilities, and prefer teamwork to improve team efficiency and effectiveness.

EDUCATIONAL & PROFESSIONAL QUALIFICATIONS

BSc. Computer Science

University of Westminster

2021 - Present Westminster, UK

- Expected to be graduated in 2024

Primary & Secondary Education

St.Joseph's College, Colombo 10

2006 – 2020 Sri Lanka

- GCE Advance Level Examination - Mathematics Stream
- GCE Ordinary Level Examination - 9 'A' distinctions

SKILLS

Programming

Node JS Java Java Springboot
Angular React Next JS
JavaScript TypeScript PHP
Python C# LaTeX
HTML & CSS .NET/C# Go
R Swing

Technologies & Tools

XML SQL Agile Chart JS
Redux Moment JS Amazon S3
Maven Gradle Spring git
GitHub Bitbucket MySQL
MongoDB Firebase SQLite
Scikit-learn Neuralnet Keras
Slack Visual Studio Figma
Jira Trello Postman

PROJECTS

. CRITR

📅 May 2021 - March 2022

- As part of an academic research project, my team and I developed CRITR (Convolutional Neural Network-based Handwritten Sinhala Character Recognition). This project aimed to improve the accuracy of recognizing handwritten Sinhala characters. My specific role in the project was to build and train the Neural Network.
- Using technologies like Keras and TensorFlow, I developed a robust Convolutional Neural Network (CNN) model. This involved preprocessing the input data, designing the network architecture, and training the model with a large dataset. Through rigorous iterations and fine-tuning, we achieved an impressive final accuracy ranging between 80 to 90 percent.
- The overall solution we created was a commercial web application. This application utilized the CRITR model to recognize handwritten Sinhala characters. By leveraging the power of CNNs and integrating our research findings, we developed a user-friendly and practical tool for character recognition.

React JS Vanilla JS Firebase HTML 5 CSS 3
Convolution Neural Networks Keras Tensor Flow

Built a client-server Application - Project for the University of Westminster

📅 January 2022 – March 2022

- In this project, I developed a client-server application using Java Enterprise. The server portion was deployed as a SOAP web service on the GlassFish server. Additionally, I implemented a RESTful version of the service on the Apache Tomcat server. The key technologies used included Java EE, SOAP, REST, GlassFish, Apache Tomcat, JPA, XML, and HTTP. This allowed for a versatile application that could be accessed through SOAP and REST interfaces, providing flexibility for different client systems.

Java Jakarta EE Apache tomcat Glassfish 5.1.0
SOAP REST JPA

‘HOMTEQ’

📅 January 2022 - March 2022

- This was a commercial web application that allowed the customer to purchase and order home appliances. Used HTML, CSS, JavaScript. PHP was used as the back-end scripting language. MySQL was used in order to connect the database to the application. In addition to the aforementioned commercial web application, I also developed an alternative version of the application using HTML, CSS, and Node.js. For this implementation, I utilized MongoDB as the database and leveraged the Amazon S3 service for image storage. This allowed for seamless integration and efficient management of data and images within the application.

PHP HTML mysql node js mongo db CSS
Amazon S3

Microsoft SQL server Jenkins
OData
AWS Maven Gradle Spring
git Bitbucket Docker MySQL
MongoDB Swagger Bootstrap
Visx Blueprint Material UI
Semantic UI Fleunt

Operating Systems

Mac Windows Linux

Other

Leadership Teamwork Agile
Scrum Kanban Training
Mentoring Team Lead
Management Responsibilities

EXTRACURRICULAR

Participated in IFS hackathon-2023 : AI Unleashed

Participated in Google HashCode 2023 - Organized by Google Developer Groups

Best Research Project in 2022 done for the University of Westminster, United Kingdom - CRITR

Participated in Google HashCode 2022 - Organized by Google Developer Groups

SKILLS COTD.

Technologies & Tools Cotd

Jakarta EE RStudio WebStorm
IntelliJ IDEA PhpStorm
Android Studio Rider VS Code

Operating Systems

Mac Windows Linux

Other

Communication Skills
Problem Solving
Resourcefulness & Adaptability

Finding the most optimal clustering for a White Wine production using chemical properties and Tester feedbacks

📅 Jan 2022 - May 2022

- Different clustering techniques were tested under various initial conditions to improve the clustering performance. Principal Component Analysis (PCA) is used to reduce the input dimensionality, creating a modified dataset. The modified dataset is then clustered using K-Means clustering with the optimal number of clusters determined from the initial results. The objective is to classify wines into four quality classes. This research aims to enhance wine quality classification using techniques like PCA and K-Means clustering.

R Scikit-learn Matplotlib NumPy Pandas

Predicting the electricity consumption for a 11 hour Period using an Artificial Neural Network - Project completed for the Estates Planning Services Department, at University of Westminster

📅 April 2022 - May 2022

- The project involves the utilization of an Artificial Neural Network to accurately predict electricity consumption for a duration of 11 hours. A dataset comprising a total of 500 samples is employed for this task. Out of these samples, 430 are used for training the neural network, allowing it to learn patterns and relationships between input features and electricity consumption. By leveraging the power of the neural network, the project aims to provide accurate and reliable predictions of electricity consumption, enabling better planning and optimization of energy resources. The neural network is trained using the available data, and once trained, it can generalize its knowledge to make predictions on unseen data points. Through this application of artificial intelligence, the project seeks to contribute to the field of energy forecasting and facilitate efficient energy management strategies.

R Matplotlib Pandas NumPy NeuralNet

EMS-PLANNRS

📅 May 2023 - May 2023

- In my Angular project, I developed an event management system with a Go backend. The project involved integrating the Amazon S3 service to handle image uploads and storage. To ensure secure communication and data encryption, I utilized the CryptoJS library. Additionally, I implemented the Moment.js library for efficient handling of date and time operations. The backend utilized a MongoDB database to store event data, providing a reliable and scalable solution. Through this project, I gained experience in frontend development using Angular, backend development using Go, integrating cloud services like Amazon S3, and working with databases like MongoDB.

Angular Go CryptoJS MomentJS AmazonS3

Time Management

Discipline & Strong sense of responsibility

Ability to manage concurrent deadlines

TECHNICAL, INTERESTS

Web/Mobile Application Development

Machine Learning

Data Mining & Information Retrieval

Data Analysis

Cloud Programming

INTERESTS

- Researching and experimenting with emerging technologies and trends in the field of computer science.
- Exploring and learning new programming languages, such as Python, JavaScript, Go, or Rust.
- Diving into various frameworks and libraries, such as React, Angular, TensorFlow, or java spring boot
- Understanding the concepts of DevOps, continuous integration/continuous deployment (CI/CD), and automation tools like Docker or Kubernetes.
- Keeping up with advancements in cloud computing platforms like AWS, Azure, or Google Cloud and exploring their services and features.

CERTIFICATIONS

- Angular - The complete guide (2023 Edition) By Udemy
- Flutter Beginners Course (2021) By Udemy
- Dart Beginners Course (2021) By Udemy
- Dart Intermediate Course (2021) By Udemy
- Dart Advanced Course (2021) By Udemy
- Java Master Class by Tim Buchalka via Udemy

REFEREES

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