

# Nipuna Upeksha

## Software Engineer

✉ nipuna.ueksha@gmail.com

🏠 nipunaueksha.github.io

☎ +359 8-8567-1619

🐙 github.com/nipunaueksha

🌐 linkedin.com/in/nipuna-ueksha

## Employment

### Software Engineer @ WSO2

May 2021 – Present // Colombo, SL

- ▶ Write modern and performant code for the WSO2 Identity Server and a wide spectrum of clients.
- ▶ Work with a diverse array of languages, frameworks and version control systems such as, Java, OSGi, Maven, Swagger, React, Node.js, MySQL, Oracle DB, Docker, OAuth, SAML, Git, etc.
- ▶ Contributed to implementing the B2B Organization Management Feature for the WSO2 IS.
- ▶ Spearheaded product migrations while providing solutions for intricate bugs and vulnerabilities.
- ▶ Implementing Integration and Identity solutions via offsite customer engagements while identifying and resolving production issues in critical business deployments under tight SLAs.
- ▶ Work on providing developer-focused support on the WSO2 IS and Asgardeo solution while communicating and collaborating with interdisciplinary teams of engineers, architects, designers, and clients on a daily basis.

### Visiting Lecturer @ IIT, affiliated with University of Westminster, UK

September 2022 – February 2023 // Colombo, SL

- ▶ Comprehensively delivered lectures on 6COSC022W – Advanced Server-side Web Programming which included topics like web frameworks for PHP/CodeIgniter, AJAX, JQuery, RESTful APIs, Backbone.js, and user authentication.
- ▶ Played a crucial role as a panel member for final year project viva examinations, actively participating in the evaluation and assessment of students' culminating academic projects.

### Trainee Electronics and Software Engineer @ Sanota

June – December 2019 // Colombo, SL

- ▶ Introduced an innovative approach for tracking AGVs (Automatic Guided Vehicles) leveraging an inductive sensor-based system integrated with ESP 8266, Arduino, and trilateration.
- ▶ Contributed to implementing a portable graph plotting device using Raspberry Pi.
- ▶ Worked with a team of engineers to build a web-based apparel management system.
- ▶ Implemented an indoor Wi-Fi based positioning system using Node MCU/ESP8266 grid.
- ▶ Worked closely with engineers and designers to develop, document, and manage the mentioned projects while providing demonstrations to multiple potential clients.

## Projects

### B2B Organization Management Feature for WSO2 IS @ WSO2

Java, Maven, OSGi, RESTful API, Swagger, JUnit, Mockito, Oracle DB, MySQL, PostgreSQL, H2 DB

- ▶ Lead developer of the role management implementation of B2B hierarchical Organization Management extension for WSO2 IS to fill the gap in tenant based user management.

<https://github.com/wso2-extensions/identity-organization-management>  
<https://github.com/wso2/product-is>

### AGV Management System @ Sanota

Java, Spring, Gradle, Arduino, Node MCU/ESP8266

- ▶ Architected and implemented an innovative AGV management system with an inductive sensor grid, NodeMCU/ESP8266 module and a Java application

### RPi Logger @ Sanota

Raspberry Pi, Java, Maven

- ▶ Real-time graph plotting device implemented using Raspberry Pi and a Java application.

## Career Objective

To continuously enhance my knowledge, skills and experience by getting involved in a changing environment in the field of computer science and engineering while committing towards personal and organizational growth to the best of my ability.

## Skills

### Backend Development

Java, Spring, J2EE, Python Flask, FastAPI, Node.js, PHP, Gulp.js RESTful Web Services, SOAP, GraphQL

### Frontend Development

JavaScript, TypeScript, React, Redux, Angular, Electron, Gatsby, Next.js, HTML, CSS, Sass, Bootstrap 5, Tailwind CSS, Alpine.js, Thymeleaf

### Development Tools

Docker, Rancher, AWS (Amazon Web Services), Azure, NGINX, IntelliJ, VS Code, Jupyter Notebook, NetBeans, Eclipse, Git, Netlify, Vercel, Maven, Gradle, NPM, Yarn, NVM, Wordpress

### Technologies

IAM (Identity and Access Management), OAuth, OIDC, SAML, XACML, WS-Federation, Kerberos KDC, OSGi

### Mobile Development

Ionic, React Native

### Databases

MySQL, PostgreSQL, Oracle DB, MS SQL, Aurora, Mongo DB, Dynamo DB, H2 DB

### Hardware

Arduino, PIC, FPGA, Raspberry Pi, Node MCU, TMS3205535 eZDSP, ESP 8266

## Certifications

### AWS Certified Solution Architect - Associate (SAA-C03)

Amazon

### WSO2 Certified Identity Server Developer - V5

WSO2

### WSO2 Certified Identity Server Practitioner - V5

WSO2

### Practical Test Driven Development for Java Programmers

LinkedIn

## Classfying and Predicting News Sources @ RGU

Python, Pandas, Numpy, Scikit-Learn, Tensorflow, Matplotlib, Scrapfly

- Architected and implemented XHR request based tweet extraction for predicting news sources based on the content of the article.

<https://github.com/nipunaupeksha/cmm-706-text-analytics>

## Prototyping a Functional Hearing-Aid @ UoM

C, MATLAB, Code Composer Studio, TMS320C5535eZDSP

- Architected and engineered a functional hearing aid with the collaboration of Wickramarachchi Institute of Speech and Hearing (WISH).

<https://github.com/nipunaupeksha/codecomposer-codes-fyp>  
<https://arxiv.org/abs/2303.17829>

## Hybrid Search for Shopify

Python, FastAPI, Shopify API, PostgreSQL, Pinecone

- Robust and hybrid search using Pinecone AI agent and B25 AI Model.

<https://github.com/nipunaupeksha/shopify-hybrid-search>

## Holux POS Management System

Angular, Electron, Node.js, Express, MySQL

- POS Management System for a restaurant chain.

<https://github.com/nipunaupeksha/holux-backend>  
<https://github.com/nipunaupeksha/holux-frontend>

## eMed

Laravel, PHP, HTML, and CSS

- A webapplication for doctors and the hospital staff to give their best service to patients

<https://github.com/nipunaupeksha/eMed>.

## Trip Recommender

Ionic, Angular, Node.js, Express, MySQL

- Contributed as the lead developer in creating a trip recommendation application.

<https://github.com/nipunaupeksha/trip-recommender-backend>  
<https://github.com/nipunaupeksha/trip-recommender-frontend>

## Apollo Hotel Management System

Java, Spring, PostgreSQL, GulpJS, Thymeleaf, Tailwind, JUnit, Mockito, Cypress, Docker

- Architected and implemented a hotel management system for a reputed Sri Lankan Hotel.

<https://github.com/nipunaupeksha/apollo-hotel-management-system>

## Bleach Payroll Management System @ IJSE

Java, Java Swing, MySQL, Jasper Reports, NetBeans

- Implemented a payroll management system for a popular news channel in Sri Lanka.

<https://github.com/nipunaupeksha/Payroll-System>

## References

### Mr. Asela Pathberiya

Associate Director/Architect

WSO2 Inc.

✉ [asela@wso2.com](mailto:asela@wso2.com)

☎ +94 777-625-933

### Dr. Anjula C. De Silva

Senior Lecturer

University of Moratuwa

✉ [anjulads@uom.lk](mailto:anjulads@uom.lk)

☎ +94 777-291-737

## Education

### Robert Gordon University

2020 – Present // Aberdeen, UK

Reading for M.Sc. in Big Data Analytics

CGPA: 4.0/4.0

### University of Moratuwa

2016 – 2020 // Moratuwa, SL

B.Sc. Engineering (Hons.) specialized in Electronics and Biomedical Engineering

GPA: 3.28/4.2

### IJSE - Institute of Java and Software Engineering

2015 – 2016 // Galle, SL

CMJD – Comprehensive Master Java Developer

### Richmond College

2001 – 2014 // Galle, SL

G.C.E. Advanced Levels for subjects Physics, Chemistry, Combined Mathematics and General English. Acquired district rank **26** and island rank **247** among 35,000 candidates with **2.357** Z-Score.

9'A passes in G.C.E. Ordinary Levels.

## Awards & Honors

### Dean's List - Semester 8 @ UoM

2020

### Mahapola Merit Scholarship for Engineering Undergraduates

2016

### Richmond College Merit Award

2016

### Richmond College Chess Colors

2015

### Several District, Provincial and All-island Chess Awards

2005–2015

## Extra Curricular Activities

### IEEE EMBS Student Branch Chapter @ UoM (2017–2021)

- Organized "TechMedImpact Forum (2017)" – Sri Lanka's first ever Biomedical Engineering related conference.
- Organized "Brainstorm (2019)" – Sri Lanka's Premier Biomedical Engineering Design Competition.

### Electronics Club @ UoM (2017–2021)

- Organized "Sri Lankan Robotics Challenge (SLRC)" – 2017
- Organized "Expose (2019)", showcasing innovations from the students of the Department of Electronics and Telecommunication Engineering.