

Avishka S.N. Shamendra

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A recent graduate passionate about cybersecurity & cloud computing, seeking an opportunity to gain knowledge and make a meaningful impact.

Recently, I have been intrigued by the principles of trusted computing and serverless model.

Research Interests:

Cloud Security & Privacy,
Trusted Computing, Serverless
Computing, Edge Computing, Cloud
Architecture

EDUCATION

University of Moratuwa, Sri Lanka

2018 – 2023

B.Sc. Engineering (Hons.), First Class

Cumulative GPA: 4.13/4.20

Computer Science & Engineering

Dean's List: Semester 1, 2, 3, 4, 5, 6, 7 & 8

- Gold Medal for the best academic performance in Computer Science & Engineering - Rank 1/128

Nalanda College, Colombo, Sri Lanka

Graduated in 2017

G.C.E. Advanced Level 2017 (Physical Sciences)

4As | Country Rank: 94 | Z-score: 2.314 (top 0.5%)

- National university entrance examination taken by more than 270,000 students

EXPERIENCE

Software Engineer - WSO2 LLC.

July 2023 – Present

Sri Lanka, USA

Technologies: Java | Go | K8s | Docker | Maven

- Designed and developed the metrics module for *Choreo Connect*, a cloud-native API gateway, while gaining experience with cloud technologies such as Kubernetes and Docker.
- Currently involved in the research and development of the *API Governance Module* for *WSO2 API Manager*, which has improved my understanding of various governance aspects, particularly API security.

Software Engineering Intern - WSO2 LLC.

Dec. 2021 – Aug. 2022

Sri Lanka, USA

Technologies: Java | Maven | FHIR

- Developed the *OAuth2/FHIR Scope Management Module* for the WSO2 Open Healthcare solution, which helped me grasp security concepts such as OAuth2 and OpenID Connect.

Software Engineering Intern - iXD Labs (Pvt) Ltd.

May 2020 – May 2021

Startup, Sri Lanka

Technologies: Python | Node | K8s | Docker

- Collaborated with a small team to complete projects within a given time frame and gained experience in software development and cloud technologies.

RESEARCH & PROJECTS

TruFaaS - A Trust Verification Framework for FaaS

Sep. 2022 – June 2023

Final Year Research Project

[UbiSec 2023 Publication](#) | [GitHub](#)

- Proposed a novel architecture for a trust verification framework to calculate and verify the trust of functions on a FaaS platform. We also implemented TruFaaS on the open-source FaaS platform *Fission* to demonstrate its practical effectiveness.
- Authors: A Shamendra, B Peries, G Seneviratne, S Rathnayake
- Technologies: Go | Docker | Kubernetes | Fission Serverless Framework

UniLabs Inventory Management System

Academic Project - Software Engineering Module

July 2021 – Dec. 2021

[GitHub](#) | [YouTube](#)

- Designed and developed a barcode-based automated inventory management system for university laboratories, while gaining exposure to the complexities of software architecture design.
- Technologies: Django | React | Flutter-BLoC | PostgreSQL

Agro Wholesale Market

Academic Project

Dec. 2020 - Feb. 2021

[GitHub](#)

- Implemented a web-based system which allows farmers to post about their harvested produce for sale and wholesale buyers to privately respond with bids, following MVC architecture.
- Technologies: Node | Express | PostgreSQL | React

Airline Reservation System

Academic Project - Database Systems Module

Dec. 2020 - March 2021

[GitHub](#)

- Developed a complete airline reservation system which enables customers to book flights and airline management to schedule flights, using advanced database concepts such as transactions, indexing, and views
- Technologies: Node | Express | PostgreSQL

COVID-19 Situational Analysis Dashboard

Personal Project

March 2021

[GitHub](#)

- Used to provide COVID-19 case figures to Sri Lankans through the API of the Health Promotion Bureau
- Technologies: React | React-Redux | Google Charts

Mobile Application Projects

Personal Projects

2020

[GitHub-Timetable App](#) | [GitHub-Mora GPA App](#)

- My Timetable App: State of the art application for school children to keep track of their timetable. Had 5000+ downloads on Play Store before the app was retired.
- Mora GPA App: Designed for undergraduates of University of Moratuwa to keep track of their GPA. Had 400+ downloads on Play Store before the app was retired.

Mora dARts - An AR Darts Game

Academic Project

Feb. 2023

[GitHub](#) | [Video](#)

- Single-player AR mobile dart game created using Unity game engine and the features of AR Foundation
- Technologies: C# | Unity

AWARDS & SCHOLARSHIPS

IBM Gold Medal for best academic performance in Computer Science & Engineering, University of Moratuwa, awarded at the General Convocation 2023

IBM Engineering Scholarship for achieving the highest GPA for semesters 3 and 4 in the Faculty of Engineering, University of Moratuwa 2019/2020

Mahapola Scholarship from the Sri Lankan government for the top 1% of University entrants 2018

COMPETITIONS & HACKATHONS

Top Ten IEEEExtreme 14.0, 15.0, 16.0 - 2020, 2021, 2022

Consistently ranked among the top ten in Sri Lanka for three consecutive years

Winners Decode 1.0 - 2021

Winners of the programming hackathon organized by the ACM student chapter of University of Moratuwa

Winners Dentsu RiseUp Challenge Sri Lanka - 2022

Pitched Food Pulse Application to minimize food waste in hotels & shops in Sri Lanka by re-distributing excess food

Finalists TADHack Sri Lanka - 2022

Reached the finals of TADHack telecom application development hackathon with the Food Pulse Application

TECHNICAL STRENGTHS

Programming Languages	Java, Python, Go, JavaScript
Cloud-based	Kubernetes, Docker
Databases	MySQL, PostgreSQL, MongoDB, Cloud Firestore
Web Development	Django, Node, Express, React
Mobile Development	Flutter

EXTRA CURRICULAR ACTIVITIES

IT/Marketing Director - IAESTE, Sri Lanka 2022/23

IAESTE is a global non-profit organization offering students international technical internship opportunities. Was Responsible for all IT & marketing activities, including the development of IAESTE Sri Lanka website

President - Science Society, Nalanda College 2016/17

Led the school science society overseeing all activities and programs organized by the society

References available upon request