Avishka S.N. Shamendra

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Ⓜ Medium   G Google Scholar

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

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

Research Interests:
Serverless Computing, Edge Computing, Cloud Architecture, Trusted Computing, Cloud Security & Privacy

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.   May 2020 – July 2021
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   July 2021 – Dec. 2021

Academic Project - Software Engineering Module   [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   Dec. 2020 - Feb. 2021

Academic Project   [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   Dec. 2020 - March 2021

Academic Project - Database Systems Module   [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   March 2021

Personal Project   [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   2020

Personal Projects   [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   Feb. 2023

Academic Project   [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   **IEEEXtreme 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