





# Sanuja Tharinda

Software Engineer at IronOne Technologies, Colombo, Western Province, Sri Lanka

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## PROFILE

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I am currently working as a software engineer. In 2023, I successfully earned a second upper-class degree in Computer Science and Engineering. My primary passions lie in software development and machine learning, and I firmly believe in their potential to address diverse real-world challenges. Ultimately, My objective is to pursue a career that provides opportunities to contribute meaningfully to these fields.

## EDUCATION

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### Bachelor of the Science of Engineering (Hons.)

Nov 2018 - July 2023

University of Moratuwa

Moratuwa , Sri Lanka

- Specialization : Computer Science and Engineering
- Overall GPA : 3.60/4.20
- Academic Standing : Second class - upper division
- Final Year Project : Enhancing Behavioural Biometrics with IMU Data

### GCE Advanced Level (A/L) Examination

Aug 2015 - Aug 2017

Dharmasoka College

Ambalangoda , Sri Lanka

- Stream : Physical science stream (Combined Mathematics, Physics, Chemistry)
- Results : 3A Passes, Z-Score : 2.2741, Island Rank : 115, District Rank : 13

## RESEARCH PUBLICATIONS

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- [1] Dilshan Senarath, Sanuja Tharinda, Maduka Vishvajith, Sanka Rasnayaka, Sandareka Wickramanayake, and Dulani Meedeniya, "Re-evaluating keystroke dynamics for continuous authentication," in *2023 3rd International Conference on Advanced Research in Computing (ICARC)*, 2023, pp. 202–207. DOI: [10.1109/ICARC57651.2023.10145743](https://doi.org/10.1109/ICARC57651.2023.10145743).
- [2] Dilshan Senarath, Sanuja Tharinda, Maduka Vishvajith, Sanka Rasnayaka, Sandareka Wickramanayake, and Dulani Meedeniya, "Behaveformer: A framework with spatio-temporal dual attention transformers for imu-enhanced keystroke dynamics," in *2023 IEEE International Joint Conference on Biometrics (IJCB)*, 2023, pp. 1–9. DOI: [10.1109/IJCB57857.2023.10448997](https://doi.org/10.1109/IJCB57857.2023.10448997).

## SKILLS

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Technical Fields :      Web Development — Machine Learning — Mobile Development — Database Management

Programming Skills :    C# — Java — Python — SQL — JavaScript

Technologies & Tools :   .NET Core — React — Angular — Spring Boot — Node.js — Express.js — React Native — Firebase — Git — MySQL — PostgreSQL — Azure — Keras — Tensorflow — PyTorch

# WORK EXPERIENCE

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## Research Experience

**Undergraduate Research Student**

**June 2022 - June 2023**

*University of Moratuwa*

*Moratuwa , Sri Lanka*

Enhancing Behavioural Biometrics with IMU Data

- Explored and evaluated keystroke dynamics based state of art continuous authentication systems using continuous evaluation metrics.
- Introduced a new transformer model called Spatio-Temporal Dual Attention Transformer(STDAT).
- Designed and developed a novel multi model architecture called BehaveFormer with STDATs incorporating both keystroke dynamics and IMU features.
- Developed a prototype for the Continuous Authentication system for smartphone to showcase the proposed model.

## Industrial Experience

**Software Engineer**

**August 2023 - Present**

*IronOne Technologies*

*Colombo , Sri Lanka*

- Served as a key member of the Back-End team in an agile delivery environment, contributing to the implementation and management of innovative features, addressing and resolving VAPT (Vulnerability Assessment and Penetration Testing) issues, conducting R&D, and performing bug fixing.
- Designed and developed the "AI Minutes" feature for BoardPac, which automatically generates meeting minutes from a given meeting transcript. Additionally, worked on BoardPac AI Feature Usage tracking, including an email notification system, and implemented the Quorum feature to define a minimum number of voting members for meetings. Developed the 'Email History Report' feature to track and report emails sent through the system. Integrated Google Analytics across the BoardPac platform and contributed to the commercialization of AI, audit logging, localizations, and unit testing.
- Addressed VAPT issues in BoardPac to ensure OWASP compliance, including mitigating risks such as improper input validations that could lead to HTML injections, and securing non-encrypted emails vulnerable to email harvesting and spamming.
- Built "AI Corner," a web-based AI chat application similar to ChatGPT, enabling users to ask questions with reference to custom data using different large language models.
- Actively adhered to DevOps principles, participating in all phases of the software life cycle, including development, quality assurance, deployment, documentation, and post-production support.
- Technologies: .NET Core, Angular, Microsoft SQL Server

**Software Engineering Intern**

**Dec 2021 - Jun 2022**

*LSEG Technology*

*Colombo , Sri Lanka*

- Worked in LSEG FX Exchange team team on implementing a market data replay tool, capable of converting and replaying market data from one exchange system to another exchange system.
- Was responsible for the comprehensive process of specifying requirements, creating designs, implementing solutions, conducting thorough testing, and documenting each step of the project.
- Technologies: Python, C++

## AWARDS

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### Best Paper Award

*ICARC 2023*

Won the best paper award under Human Computer Interaction category.

### Dean's List

*University of Moratuwa*

Elected due to GPA above 3.80 in semester 6.

## OTHER PROJECTS

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### Beecon Platform

A business strategy execution application with strategies, initiatives, efforts and activities management as well as progress tracking.

*Tech Stack* : React — Redux — Firebase

### Single Vendor E-Commerce Platform

A full stack e-commerce application for a single vendor

*Tech Stack* : Express.js — PostgreSQL — React — Redux

### Engage Industrial Management System

An inventory, sales and customer management system for an industrial company

*Tech Stack* : Express.js — PostgreSQL — Vue.js

### Smart Travel Sri Lanka

A travel guide application

*Tech Stack* : React — React Native — Redux — Firebase

### TFC Connect

An apartment complex management application

*Skills* : React — Redux — Django — Puppeteer

## VOLUNTEERING & EXTRA CURRICULAR ACTIVITIES

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### Junior Member of Organizing Pillar

**2021 - 2022**

*ACM Student Chapter*

Played a key role in planning and executing seminars and webinars for diverse audiences.

### Karate

**2010 - 2012**

*1st Dan Black Belt - SHOTOKANRYU KARATEDO SHISEIKAN*

2nd in Southern Province Karate-Do 2011; Top 8 in International Championship 2011.

## REFEREES

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### Prof. Dulani Meedeniya

#### Professor

*University of Moratuwa, Sri Lanka*

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### Mr. Thanushka Gunasekara

#### Software Architect

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