

SANDEEP DASSANAYAKE

Department of Computer Engineering, University of Peradeniya, Sri Lanka

✉ gdasanayake54@gmail.com | 📞 +94 718047706 | 🌐 github.com/G5andeeepD

🌐 [linkedin.com/in/sandeep-dassanayake](https://www.linkedin.com/in/sandeep-dassanayake)

INTRODUCTION

I'm a third-year Computer Engineering undergraduate at the University of Peradeniya. My interests include Computer Architecture, Computer Vision, Machine Learning, Artificial Intelligence, Embedded Systems, and Communication Networks.

EDUCATION

University of Peradeniya

BSc.Eng(Hons.) in Computer Engineering

Mar. 2021 - Present

Current GPA: **3.95/4.00**

St. Sylvesters College, Kandy

G.C.E. Advanced Level Examination - 194 from 19500+ participants nationwide

Jan. 2006 - Dec. 2019

Z-Score: **2.4826**

EXPERIENCE

Undergraduate Teaching Assistant | Department of Computer Engineering, University of Peradeniya

GP106 Computing

Jan. 2023 – May. 2023

CO223 Computer Communication Networks I

Oct. 2023 – Jan. 2024

CO224 Computer Architecture

Feb. 2024 – Present

SELECTED PROJECTS

BeeZee: Smart Beehive Monitoring System | Group | 🌐 | 🌐

Nov. 2023 - Present

- An innovative system to monitor bee colonies and detect early signs of abscondment. - A collaborative research project with the Faculty of Agriculture, University of Peradeniya
- The initial step involves creating a cloud-connected data collection box with integrated sensors (humidity, temperature, CO2, weight) and a camera, visualized on a user-friendly dashboard.
- Currently working on gathered camera footage of hive entrance to identify pollen-carrying bees.
- Contribution:
 - * Integration of Cloud Services and Deployment
 - * Investigating feasibility of a YOLO model to detect pollen on bees
 - * Setting up Camera Sensor and Video Recording
- **Technologies:** Raspberry Pi, AWS (S3, IoT Core, Lambda, EC2), Node.js, and MongoDB, React, Python

Building a 8-bit Single Cycle CPU | Group | 🌐

Mar. 2023 – May. 2023

- Developed an 8-bit single cycle CPU along with memory hierarchy to implement an ISA inspired by the MIPS architecture.
- Employed Verilog HDL for behavioral modeling and used GTKWave for waveform visualization.

VisitLog: Digital Reporting Platform for Technical Visits | Group | 🌐 | 🌐

Aug. 2023 – Nov. 2023

- Developed a software for easy documentation of technical service visits, including repairs and maintenance, ending with recipient verification and approval.
- A mobile app for technicians and a desktop dashboard for administrators to streamline task and technician management.
- Contribution:
 - * Integrated backend services (Authentication, Database, Email Functions) using firebase
 - * Setup Github Workflows for CI/CD
 - * Developed the Admin Dashboard using React
 - * Conducted User Experience Testing
- **Technologies:** React.js, Flutter, Firebase, Figma

Calm Quest: Mobile Platform for Student Counselor Interaction | Group | 🌐

May 2023 – Sep. 2023

- Calm Quest is a mobile application aimed at bridging the gap between students and counselors in a university environment.
- The application features separate interfaces for students and counselors, alongside an administrative dashboard ensuring an optimal connection between students and mental health professionals.
- Contribution:
 - * Development of the Backend and Database
 - * Development of Admin Dashboard
 - * Cloud Deployment
- **Technologies:** Java, Javascript, Python, Springboot, React, Flutter, Tensorflow, Flask, MySQL, AWS

ACHIEVEMENTS / COMPETITIONS



Competitive Coding / Hackathons

IEEE Xtream 17.0 24 hour algorithmic programming competition Team Name - AlgoApple, Global Rank - 364(Out of 7091 participants)	Nov. 2023
ACES Coders v9.0 12 hour algorithmic programming competition Organized by the Association of Computer Engineering Students of the University of Peradeniya Team Name - OptiHype, National Rank - 4(Out of 250+ participants)	Dec. 2022
ACES Coders v10.0 12 hour algorithmic programming competition Organized by the Association of Computer Engineering Students of the University of Peradeniya Team Name - CookieBytes, National Rank - 6(Out of 350+ participants)	Oct. 2023
Mora Xtream 8.0 12 hour algorithmic programming competition Organized by the IEEE Student Branch of the University of Moratuwa Team Name - CookieBytes, National Rank - 15(Out of 450+ participants)	Nov. 2023
NBQSA National ICT Awards Participation: Calm Quest: Mobile Platform for Student Counselor Interaction 	Aug. 2023
ACES Hackathon 2023 Innovative Hackathon Competition Organized by the Association of Computer Engineering Students of the University of Peradeniya Team Name - CookieBytes, Rank - 3 (Health Care Category)(Out of 70+ participants)	Jun. 2023
Cypher 2.0 algorithmic programming competition Organized by IEEE WIE Student Branch Affinity Group of Kotalawela Defence University Team Name - CookieBytes, National Rank - 3(Out of 250+ participants)	Mar. 2024
RealHack 5.0 innovative software development competition Organized by Software Engineering Students Association of University of Kelaniya Team Name - CookieBytes, National Rank - 3rd(Out of 900+ participants)	Apr. 2024

Sports

International Representation - Chess Represented Sri Lanka at World, Asian, Commonwealth, West Asian Events	Dec. 2014 - Aug. 2017
Notable Competitions West Asian Youth Chess Championship - Under 18: Champion Commonwealth Chess Championship - Under 16: 3rd Place National B Chess Championship - Champion National Youth Chess Championship - Under 18: Champion	2017 2016 2017 2017
Colours Awards and Other Awards University Colours (University of Peradeniya) for Chess - 2021, 2023 Sri Lanka University Colours for Chess Most Outstanding Sportsman of Kandy Educational Zone Most Outstanding Sportsman of St. Sylvester's College	2021, 2023 2023 2017 2017

EXTRA-CURRICULAR ACTIVITIES

Chess Captain: University of Peradeniya	Jan. 2024 – Present
Junior Treasurer: Association of Computer Engineering Students 	Feb. 2024 – Present
President: Foundation of Astronomical Studies and Exploration 	Jan. 2023 – Mar. 2024
Member of Rotaract Club of University of Peradeniya	2022 – Present

REFERENCES

- **Prof. Roshan G. Ragel**
Head of Department, Department of Computer Engineering,
Faculty of Engineering, University of Peradeniya, Sri Lanka
Email: roshanr@eng.pdn.ac.lk
- **Dr. Isuru Nawinne**
Senior Lecturer, Department of Computer Engineering,
Faculty of Engineering, University of Peradeniya, Sri Lanka
Email: isurunawinne@eng.pdn.ac.lk