

THEEKSHANA DINETH

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SUMMARY

Computer Engineering undergraduate specializing in Artificial Intelligence and software engineering with extensive experience in research, startups and leadership. Director of a national level student AI forum with proven ability to design and deploy end to end AI systems including backend architectures, data pipelines and intelligent agents. Actively involved in industry, government and academic collaborations.

EDUCATION

- **University of Peradeniya** Sri Lanka
BSc (Hons) in Computer Engineering 2024 – Present
GPA: 3.83 / 4.00
- Relevant Coursework:
 - Mathematics: Calculus I, Linear Algebra, Differential Equations, Discrete Mathematics, Probability and Statistics, Numerical Methods
 - Computer Science: Programming for Engineers, Computer Systems Programming, Data Structures and Algorithms I and II, Software Design and Development, Software Systems Design Project
 - Engineering: Digital Circuits Design, Electronics, Computer Networking, Engineering Mechanics
 - Other: Ethics and Sustainability, English for Communication
- **Bandaranayake Central College Veyangoda** Sri Lanka
GCE Advanced Level Physical Science Stream 2016 – 2024
 - Results: 3 A passes in Combined Mathematics, Physics and Chemistry

RESEARCH EXPERIENCE

- **Multidisciplinary AI Research Centre University of Peradeniya** Sri Lanka
Undergraduate Research Assistant June 2024 – Present
 - Designing and analyzing algorithms for lung sound analysis including signal processing and ML based approaches
 - Working on LLM research including language studies, GenAI diffusion models and implicit neural representations
 - Responsible for algorithm selection, implementation, evaluation and experimentation

ENTREPRENEURIAL PROJECTS

- **NovaMinds Startup Team** Sri Lanka
Founder Team Lead 2024 – Present
 - Developed WriteScan, a handwriting based digital form automation system
 - Recognized as Top 50 Inventors at Neo Ventures national competition held at Trace Expert City
 - Awarded Second Place at Open Business Summit 2025 organized by Faculty of Management, University of Peradeniya
 - Led product design, AI pipeline development and system integration
- **NexAura** Sri Lanka
Project Owner Team Lead 2025 – Present
 - Building NexClinic, an AI powered medical symptom analysis and doctor assisted decision support system
 - Developed backend using Django, PostgreSQL and Next.js and designed relational database architecture
 - Implementing agentic RAG system with vector databases and knowledge graphs

SELECTED TECHNICAL PROJECTS

- DHARA Disaster Hazard Analysis and Response Assistant with Government of Sri Lanka involving data visualization, databases and AI based analysis
- Dengue Outbreak Early Warning and Hotspot Prioritization System
- Diseased Plant Identification System using computer vision
- Vehicle Maintenance Failure Prediction and Customer Chain Prediction Systems
- CurveExplorer, interactive graphing calculator developed using Julia
- Libtiny3D, C based 3D rendering project and Python game using Pygame
- Line Following Robot project using Arduino Uno, infrared sensors and L293D motor driver with real time path correction and motor control logic

OPEN SOURCE AND COLLABORATION

- Contributor to Peraswarm international swarm robotics initiative representing E22 and E23 batches
- Collaborated with international researchers including faculty from University of Engineering and Technology Taxila
- Contributor to open source modules including toyakit by DataTalks Club

CERTIFICATIONS AND DIGITAL BADGES

- Astronomer Certification for Apache Airflow 3 Fundamentals – Astronomer
- Google AI Essentials – Google
- Postman API Fundamentals Student Expert – Postman
- Ethical Hacker – Cisco
- Introduction to Cybersecurity – Cisco
- Problem Solving (Intermediate) – HackerRank
- Python (Basic) – HackerRank
- AI in Data Analysis – Sololearn
- Ethical AI Foundations – Sololearn
- Machine Learning with Python – freeCodeCamp
- Machine Learning Basics – Sololearn
- Computer Vision Honors Certification – OpenCV University
- Problem Solving (Basic) – HackerRank
- Programming using C – Sololearn
- The Dark Web Decoded: Foundations for Ethical Awareness – SOCRadar
- Google Build with AI 2025 – Google Developers Group
- British Council Certificate in English – British Council
- Programming in Python – University of Moratuwa
- Foundations of Data Science – Google
- Generative AI in Practice – Sololearn

TECHNICAL SKILLS

- Programming Languages: Python, C, Julia, Rust, JavaScript
- AI and Machine Learning: Machine Learning, Deep Learning, Large Language Models, Agentic RAG Systems, Computer Vision, Signal Processing
- Backend and Web: Django, Next.js, REST APIs, Backend System Design
- Databases: PostgreSQL, Relational Database Design, Vector Databases, Knowledge Graphs
- Data and MLOps: MLflow, Airflow, TensorFlow, BentoML, Model Evaluation and Experiment Tracking
- Software Engineering: Data Structures and Algorithms, Object Oriented Programming, System Design, Version Control
- Tools and Platforms: Git, GitHub, Google Colab, Linux

NATIONAL LEVEL AWARDS AND INNOVATION ACHIEVEMENTS

- Recognized as Top 50 Inventors at Neo Ventures National Innovation Competition held at Trace Expert City, Sri Lanka, for the WriteScan project
- Awarded Second Place at Open Business Summit 2025, Business Incubation and Innovation Ecosystem Services Centre (BIIES), Faculty of Management, University of Peradeniya
- Received national level recognition for innovation in handwriting based digital form automation systems
- Awarded multiple certificates of excellence from inter university innovation and startup competitions across Sri Lanka

LEADERSHIP TEACHING AND SERVICE

- Executive Director Artificial Intelligence Forum for Students leading Sri Lanka's first student focused AI forum launched during AI Skills Week at University of Peradeniya
- Executive leadership in organizing AI awareness programs, interdisciplinary initiatives and industry aligned events
- Casual Instructor for CO1010, Department of Computer Engineering, University of Peradeniya
- Volunteering teacher for GCE Advanced Level students in mathematics, physics and chemistry

SPORTS AND EXTRACURRICULAR ACTIVITIES

- Represented school at All Island level baseball competitions during secondary education
- Represented University of Peradeniya at Academic Arms Association Target Sprint Shooting Competition 2025 for tertiary level students
- Selected as Sharpshooter by achieving the highest score within the university team