



# VENUKA R RANASINGHE

COMPUTER SCIENCE UNDERGRADUATE

Computer Science undergraduate with hands-on experience building production-grade systems, agentic AI platforms, full-stack development and mobile applications. Strong in problem-solving, product thinking, and business alignment, with the ability to turn ideas into scalable, real-world solutions.

## CONTACT

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**City:** Mount Lavinia, Sri Lanka

**Portfolio:** [venukar.github.io](https://venukar.github.io)

**Github:** [github.com/VenukaR](https://github.com/VenukaR)

**Linkedin:** [linkedin.com/in/venukaranasinghe](https://linkedin.com/in/venukaranasinghe)

**Medium:** [medium.com/@venukaranasinghe](https://medium.com/@venukaranasinghe)

## INTERPERSONAL SKILLS

- Leadership
- Team Collaboration
- Critical Thinking
- Time Management

## ACHIEVEMENTS

- **Hult Prize 2024**  
Semi Finalist, Dubai Summit (June 2024)  
**Rumble Guard**
- **Cutting Edge' 24 Exhibitor**
- **DHack '24 Winners (USJ)**
- **IIT Awards Excellence Award 2024**  
Undergraduate Merit Award For  
Performance at Competitions 2024
- **IIT Awards Excellence Award 2025**  
Undergraduate Merit Award For  
Performance at Competitions 2025

## WORK EXPERIENCE

**2024(Aug) - 2025(Aug)**

### SOFTWARE ENGINEER INTERN - INFORWAVES (PVT) LTD

- Spearheaded the front-end development of a large-scale AI chatbot platform (Dialog AI) for Dialog Axiata PLC, using Next.js and Tailwind CSS, and integrated it with a NestJS backend and the Agno Agentic AI framework under Agile methodology.
- Enhanced user experience and scalability for Dialog Govimuthuru and Dialog Yeheli chatbot platforms at Dialog Axiata PLC, implementing UI upgrades in Svelte and integrating Gemini-powered text-to-speech (TTS) features.
- Initiated and prototyped a LiveKit-integrated multi-agent real-time framework (Doc 990) for production-grade multimodal and voice AI agents, gaining hands-on experience with LangChain, knowledge bases, and LanceDB for contextual memory and retrieval.
- Developed the Articom Register Agent using Google ADK for Google Developer Groups (GDG) Sri Lanka, enabling modular agent registration and scalable communication workflows.
- Delivered a Flutter-based scholarship application with full backend integration for multiple mobile platforms, serving 5,000+ active users with real-time notifications and authentication.
- Contributed to several Flutter mobile applications, focusing on state management, performance optimization, and Firebase integration.

### Tech Stack

Languages: TypeScript, Python, Dart, Kotlin | Frontend: Next.js, Svelte, Tailwind CSS

Backend: NestJS, Firebase, REST APIs | Mobile: Flutter

AI / ML: LangChain, Gemini API, Google ADK, Agno Agentic Framework, LanceDB

Infrastructure & Tools: Docker, Redis, AWS, LiveKit

**2020 - Present**

### PART-TIME PRODUCT & IDEA STRATEGIST - (FREELANCE)

- Led client pitching and partnership discussions to onboard local businesses.
- Conducted market research, ROI analysis, and due diligence to validate product ideas.
- Created investor pitch decks and supported marketing strategy, product direction, and graphic design/editing.

## EXTRA CURRICULAR

### CLUBS AND SOCIETIES

- Pearl Protectors (Volunteer)
- GDG BWA I Volunteer 2025
- Leo Club Of Colombo Griffins | District 306 C2 - Leo
- Rotaract Club of IIT - Member

### SPORTS

- Athletics

## REFERENCES

### • Mr. Kushan Bhareti

Visiting Lecturer - Informatics Institute of Technology

Director - Inforwaves (Pvt) Ltd.

BEng (Hons) Software Engineering

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### • Mr Vinura Welgama

Founder - Serendive Ventures Pvt Ltd |

Consultant at Boston Consulting Group

Harvard Business School MBA

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## EDUCATION

### 2022 - Present

**READING AT INFORMATICS INSTITUTE OF TECHNOLOGY (AFFILIATED WITH UNIVERSITY OF WESTMINSTER , UK)**

BSc (Hons) Computer Science

### 2022

**GRAPHIC DESIGN AND MULTIMEDIA PROGRAM (SLIIT)**

### 2008 - 2021

**ANANDA COLLEGE | COLOMBO**

**GCE Advanced Level (2019-2021)**

Physical Science Stream (Combined Math, Physics, Chemistry)

**GCE Ordinary Level (2018)**

08 As & 01 B

## GROUP & PERSONAL PROJECTS

### RUMBLE GUARD | GROUP

- Led development of a mobile app using Flutter to mitigate human-elephant conflict in Sri Lanka.
- Implemented seismic wave detection and deep learning models (TensorFlow) for accurate real-time elephant movement alerts.

<https://www.linkedin.com/in/rumbleguard/>

### DENGUE BOT - PDF QUESTION ANSWERING SYSTEM

Built a LangChain-based system for answering questions from PDF documents using retrieval-augmented generation.

<https://github.com/VenukaR/dengue-chat-bot>

### AI-POWERED GOOGLE FORMS AUTO-FILLER

Developed an AI agent to automatically complete Google Forms, improving efficiency and accuracy.

<https://github.com/VenukaR/AutomatedAgenticFormFiller>

### PATHFINDING VISUALIZER

A interactive web-based visualization tool for exploring different pathfinding algorithms.

Watch as various algorithms navigate from a start point to an end point, avoiding obstacles in real-time (A\*, Dijkstra, DFS, BFS, Greedy).

<https://github.com/VenukaR/AIAlgorithms>

### WAVEGUARD

A mobile application built with Flutter that empowers communities to protect and preserve marine ecosystems.

<https://github.com/VenukaR/WaveGuard>

### BLOOD LINK | IDEALIZE'23 | GROUP

Built a web platform connecting blood donors, banks, and recipients, improving donation rates and streamlining processes.

<https://github.com/thisha-me/BloodLink>

### EDUMAX | CODESPRIN 7.0 | GROUP

Implemented a learning platform for practicing past papers, enhancing accessibility and engagement through forums and SMS updates.

[https://github.com/SethugeD/CS-251\\_Matrix](https://github.com/SethugeD/CS-251_Matrix)