

# GUNABALA DILAKSAN

☎ (+94) 762 606 990 | ✉ [gunabaladilaksan1999@gmail.com](mailto:gunabaladilaksan1999@gmail.com) | 📍 Jaffna, Sri Lanka

🌐 [DilaksanGunabala](#) | 🌐 [DilaksanGunabala](#)

## PERSONAL STATEMENT

A motivated Computer Engineering undergraduate at the University of Jaffna, specializing in Data Science. Experienced in full-stack development, data science and machine learning with a strong interest in applying analytical skills to solve real-world problems. Passionate about gaining practical experience and contributing to impactful, innovative solutions in the fields of Software Engineering and Data Science.

## CAREER HISTORY

- **Completed internship at LankaElectricity Company(Pvt)Ltd.** 2025 Feb - 2025 Aug  
*Technologies: HTML, CSS, JavaScript, React.js, Node.js, Express, MongoDB, REST APIs*
  - Worked as a Frontend and Full-Stack Developer contributing to multiple internal systems. Developed and optimized responsive user interfaces using React.js, improving usability across devices and enhancing overall user experience..
  - Integrated REST APIs to enable efficient real-time data rendering and streamlined system communication.
  - Designed and implemented MERN stack components including authentication, CRUD modules, and backend services, ensuring smooth and reliable end-to-end functionality across the application.

## EDUCATION

- **University Of Jaffna** 2021 Jan - Present  
*BSc. Eng. (Hons.) in Computer Engineering* Jaffna, Sri Lanka
- **J/Skandavarodaya College** 2009 Jan - 2019 Aug  
*O/L: 7A2B, A/L: A2B* Jaffna, Sri Lanka

## PROJECTS

- **University In-Course Marks Management System** [🔗]  
*Technologies: Next.js, FastAPI, MySQL, REST APIs*
  - Developed a full-stack university marks management system with secure FastAPI-based REST APIs, role-based access for students and lecturers, efficient MySQL data management, and a responsive Next.js user interface for real-time in-course assessment viewing and management.
- **Satellite Imaging Based Agricultural Yield Prediction**  
*Technologies: Python, CNN, TensorFlow/Keras, OpenCV, NumPy, Pandas*
  - Developed a CNN-based deep learning model to predict crop yield from satellite images, with preprocessing and analysis of remote sensing data for accurate forecasting.
- **Lecture Hall Booking System**  
*Technologies: MERN Stack, Node.js, Express.js, MongoDB, React.js, REST APIs, Figma*
  - Developed a full-stack MERN booking system with secure Node.js/Express APIs, real-time room availability, optimized MongoDB data models, and a responsive React UI designed from Figma prototypes.
- **Gym Management System** [🔗]  
*Technologies: Next.js, FastAPI, MySQL, REST APIs, Docker*
  - Developed a full-stack gym management system with FastAPI-powered REST APIs, member and trainer management, subscription and payment tracking, efficient MySQL database design, a responsive Next.js frontend dashboard, and containerized deployment using Docker for scalable and consistent application environments.
- **AI Forecasting – Energy Sector**  
*Technologies: Python, Scikit-Learn, Pandas, NumPy, Data Visualization*
  - Developed Python-based ML models for short-term and long-term electricity demand forecasting, integrating data preprocessing and visualization for accurate energy trend prediction.
- **High-Performance Tamil Spell Checker**  
*Technologies: Python, NLP, PyTorch, Hugging Face*
  - Developed a lightweight AI-based Tamil spell checker using natural language processing techniques, optimized for fast and accurate detection and correction of spelling errors in real-world text, suitable for resource-constrained environments.
- **SaaS-Based Task Management System**  
*Technologies: React, Node.js, PostgreSQL, JWT, Cloud Deployment*
  - Developed a full-stack task management web application with secure user authentication, real-time task creation and tracking, and role-based access control for Admin and Staff users, optimized for scalable cloud deployment.

- **Employee Management System**  
*Technologies: React, Node.js, PostgreSQL, Cloud Deployment*
  - Developed a full-stack employee management system featuring employee profile handling, attendance tracking, and role-based access control, including an admin panel for centralized management. Designed for scalable cloud deployment and optimized for real-world organizational use.
- **Blogging Platform (Medium Clone)**  
*Technologies: Node.js, React*
  - Developed a full-stack blogging platform featuring a rich text editor, tagging and advanced search functionalities, SEO-optimized article rendering, and an interactive comments system, designed to provide a smooth and responsive user experience.

SKILLS

- **AI Tools & Agent Skills:** Prompt engineering, LLM-based agent interaction, conversational AI, n8n workflows, basic LangChain, API integration
- **Programming Languages:** JavaScript, Java, Python
- **Web Technologies:** HTML, CSS, React, Node.js, Express
- **Database Systems:** MySQL, MongoDB
- **Data Science & Machine Learning:** ML, NLP, Hugging Face, Pandas, NumPy, PyTorch
- **Version Control:** Git, GitHub
- **Software Architecture:** RESTful API design
- **Soft Skills:** Quick learner, Problem-solving, analytical thinking, team collaboration

RELEVANT ACADEMICS

Data Structures and Algorithms	Operational Research	Data Visualization
Natural Language Processing	Advanced Machine Learning	Operating Systems
Database Systems	Convolutional neural networks	Applied Statistics
Neural Networks and Fuzzy Logic	Program Construction	

CERTIFICATIONS

- Feature Engineering - [Kaggle](#)
- Intro to Machine Learning - [Kaggle](#)

VOLUNTEER EXPERIENCE

• <b>School Table Tennis Team</b> <i>Skandavarodaya College</i>	2012 - 2017
• <b>Tamil Union Member</b> <i>University of Jaffna</i>	2022 - Present
• <b>Vice Captain, Table Tennis Team</b> <i>University of Jaffna</i>	2023 - 2024

REFERENCES

1. **Dr. (Mrs) P. Jeyanathan**  
Head, Department of ComputerEngineering  
University of Jaffna  
Phone: +94212060161  
Email: pratheeba@eng.jfn.ac.lk
2. **Dr. (Mrs) S.Jananie**  
Senior Lecturer, Department of Computer Engineering  
University of Jaffna  
Phone: +94212060160  
Email: jananie@eng.jfn.ac.lk