## Thribhuvan Sunkavalli

Final Year UG Student Seeking Internship & Job Roles

# → +91-855-585-0664 → bhuvan2k3@gmail.com → ec21b1093@iiitdm.ac.in → GitHub Profile in LinkedIn Profile

# Indian Institute of Information Technology, Design and Manufacturing, Kancheepuram, Chennai-127

#### **EDUCATION**

#### • IIITDM Kancheepuram

2021-

Bachelor of Technology, Electronics and Communication Engineering, Minor in ML

# CGPA: 8.65

#### EXPERIENCE

# • Teaching Assistant

August 2024 - April 2025

IIITDM Kancheepuram

Chennai

- TA for the course "EC2004: Digital Circuits Practice", involving the hardware and Verilog implementation of digital circuits using latches and flip-flops, async/sync counters, shift registers, and others.
- TA for the course EC3005: Communication Systems Practice; Involving the simulation of various types of modulation techniques for transmission of information, such as AM, FM, PM, PSK, ASK, FSK using MATLAB Communication System Toolbox and HFSS.

## • Hardware Design for Embedded Systems Intern

May 2024 - August 2024

Microlink Information Technologies (MLIT)

Vijayawada

 Worked upon contributing for the design and development of an IrDA electricity meter scanner in a cost-efficient manner.

• AI Intern

May 2023 - September 2023

AICTE Remote

 Gained expertise in Image Processing, Signal Processing, Machine Learning and Deep Learning through using MATLAB, as a part of a Virtual Internship program offered by MathWorks and AICTE.

• FRT Intern

May 2023 - July 2023

AICTE

Remote

- Learnt about various Azure Cloud Services, and gained hands-on-experience through interactive sessions during a Virtual Internship program in collaboration with Microsoft, AICTE, FutureSkills Prime, and affiliate partners GitHub, and Foundit.
- Developed a functional and interactive Restaurant Website as a part of my Internship Project.

#### • Electronic System Designer

April 2022 - January 2023

Mars Research Station, IIITDM Kancheepuram

Chennai

- Technical Club in my Institute, where I collaborated with 19 students across all the disciplines to build an Autonomous Rover for Competitive Events such as ERC, ARC, URC.
- Worked on the design of Control Systems, Communication Systems and Power Electronics of the Rover.

#### Personal Projects

#### • BMI Prediction

November 2024 - December 2024

 $ResNet50,\ CNN\ Pipelines$ 

- Attempt to predict BMI of a person using only their frontal and side-view facial images.

# • Skew Correction

March 2024 - April 2024

RotNet, CNNs

 Built a RotNet architecture-based Deep Learning model through TensorFlow to correct images that are slanted, or skewed, using CNNs in the architecture. Achieved a test accuracy of 82% on an augmented dataset of 1000 images.

#### • Epilepsy Prediction

Feb 2024 - May 2024

 $CNN,\ ResNet,\ Wavelet\ Transform,\ SCA,\ BSS,\ EMD$ 

- Developed a Deep Learning Model using CNNs for predicting epileptic seizures 10 minutes prior by utilizing EEG recordings, with an accuracy of 94%.

#### • Path Finding Agent

March 2024 - April 2024

- Simulated an AI agent picking up an item and delivering it to the goal destination in the shortest and cost-efficient path by implementing A\*, IDS, and BFS algorithms in Python, and utilizing Pygame library for visualization.

#### Automated Inventory Log

Yolo, esp32cam, Arduino, CV

- Automating Inventory Management by implementing multiple ESP32CAM Modules for capturing images, and processing them using CV to identify, quantify and localize items in a record file.

#### • Primal-Dual Optimization

Nov 2023 - Dec 2023

Jan 2024 - April 2024

Algorithm for smoothening a non-smooth optimization function

- MATLAB implementation of Chambolle and Pock's Primal Dual Algorithm in conjunction with Tikhonov Regularization and a Gaussian Kernel for function generation.

#### Placements Analysis and Predictions

Aug 2023 - Nov 2023

Python, Pandas, Matplotlib, Seaborn, Random Forest Regression

- Performed Data Analysis and applied ML models to analyze and predict placements statistics for my institution.

#### • Restaurant Website

May 2023 - July 2023

Azure Static App for Web Deployment, Azure Blob Storage for storing the website data

- Developed a functional and interactive Restaurant Website.

#### • Deep Learning Model for Rice Classification

May 2023 - June 2023

CNNs, Pre-trained model VGG16

- Classifying 5 major types of rice based on their shape.

#### • Encrypted Serial Communication

Mar 2023 - Apr 2023

Arduino, cpp, encryption, ecc256

- A library to enable encrypted communications over serial ports.

#### TECHNICAL SKILLS AND INTERESTS

Languages: Python, C++, C, Java, C#, HTML, CSS, JavaScript, SQL, R, Bash, PowerShell, Arduino, Verilog

Softwares: VSC, MATLAB, NI Multisim, NI LabVIEW, KeiluVision, Arduino IDE, Auto CAD

Frameworks/Libraries: .NET, Angular, React.js, Node.js, Tensorflow, PyTorch

Cloud: Microsoft Azure, Amazon Web Services

Soft Skills: Hard-worker, Patient, Consistent, Disciplined

Areas of Interest: Signal & Image Processing, AI, ML, DL

#### CERTIFICATIONS AND ACHIEVEMENTS

- Foundational C# with Microsoft, Microsoft
- Google Cybersecurity, Coursera
- Google AI Essentials, Coursera
- JavaScript DSA, freeCodeCamp
- **IBM Z Datathon**, IBM
- Responsive Web Design, freeCodeCamp
- Deep Learning Onramp, MathWorks
- Image Processing Onramp, MathWorks
- Signal Processing Onramp, MathWorks
- AWS Cloud Essentials, Amazon
- Intermediate Machine Learning, Kaggle
- Problem Solving Intermediate, HackerRank
- Web Development with Python and Flask, Jovian
- 6 Gold Medals, 1 Silver Medal International Mathematics & Science Olympiad (IMO, ISO)

#### LANGUAGES

- English, C2
- Telugu, C2
- Hindi, A1
- Spanish, A1