Dipu Kumar Singh

+91 6033936597· dipu.ece.21@nitap.ac.in· LinkedIn · GitHub · Portfolio

EDUCATION

National Institute of Technology — Jote, Arunachal Pradesh, India
B.Tech in Electronics and Communication Engineering — 2021 – 2025
CGPA: 7.86 (current)

Children's Garden — Sasaram, Bihar, India
CBSE Board(12th)
Percentage: 84.8%

WORK EXPERIENCE

Exposys data lab — Bangalore, Karnataka, India
Data Science Intern — Jun 2023-Jul 2023

– Developed a model for leveraging Data Science to Predict profit values of companies.

Exposys data lab — Bangalore, Karnataka, India
Data Science Intern — Jun 2023-Jul 2023

– Developed a chatbot based on LLM.

National Institute of Technology Patna — Patna, Bihar, India
Research Intern — Jun 2024 – Feb 2024

– Worked on Lora (Long Range Communication). A cross domain project of electronics communication and IT.

VLSI Design — Jote, Arunachal Pradesh, India
VLSI Design Intern — Jan 2023 – Feb 2023

– Worked on RTL to GDS designing.

PROJECTS

Web development

GitHub

- Blog website using MERN Stack
- Next.js

Quantum Machine Learning:

GitHub

- Developed Qiskit Machine Learning, a comprehensive framework integrating quantum kernels and neural networks for easy and flexible quantum machine learning applications.

Diabetic Retinopathy Detection using Machine Learning:

GitHub

- Developed a machine learning model to detect diabetic retinopathy from retinal images.
- Utilized deep learning techniques and image processing to classify retinal images into different stages of retinopathy.

AI Companion for Health Monitoring:

GitHub

- Designed and built an AI companion application for assisting users in monitoring their health metrics.
- Integrated machine learning algorithms to analyze user-provided health data and provide personalized recommendations.

Kidney Disease Classification System:

GitHub

- Developed a classification system using machine learning algorithms to predict the presence of kidney diseases.
- Preprocessed medical data and applied various classification algorithms to accurately classify patient data.

Face Detection Project:

GitHub

- Created a face detection system using computer vision techniques and deep learning models.
- Utilized OpenCV and deep learning frameworks to detect faces in images and video streams.

Chat Multiple Documents Application:

GitHub

- Developed an application for conducting real-time chat discussions while collaboratively editing multiple documents.
- Implemented features such as document sharing, version control, and chat functionality for seamless collaboration.

Health App with Comprehensive Features:

GitHub

- Created a comprehensive health app with features for tracking various health metrics, including physical activity, nutrition, sleep, and vital signs.
- Utilized machine learning algorithms to provide personalized health insights and recommendations.

MERN Authentication System:

GitHub

- Developed a secure authentication system using the MERN (MongoDB, Express.js, React.js, Node.js) stack.
- Implemented features such as user registration, login, and password management with encryption.

CERTIFICATIONS (optional)

Web development 2023

Udemy *GitHub*

- Full Stack Website
- Front End Development

Data Science and Machine Learning 2023

Udemy *GitHub*

- Proficient in data analysis, visualization, and statistical analysis using Python libraries.
- Skilled in building and deploying machine learning models using scikit-learn.
- Experienced in designing and implementing deep learning models with TensorFlow and Keras.

SKILLS

Programming: C, Java, JavaScript, Python
Laboratory Techniques: LT Spice XVIII Circuit Design, Ardino, Keil, Ansys HFSS
Languages: Hindi, English
Development: HTML, CSS, React.JS, TypeScript, Next.js, Tailwind CSS, shadcn/ui, mongodb, sql
Data Science , Machine Learning & Deep Learning: Data analysis, visualization, scikit-learn, TensorFlow, Keras, Neural networks, CNNs, RNNs

POSITIONS OF RESPONSIBILITY

- **Mentor:** Coding Pundits NIT AP
- **Coordinator:** Movie Club, Photography Club, Addovedi, Atulyam
- **Volunteer:** Think India NIT AP, NCC NIT AP

ACHIEVEMENTS

- **1st Position** - Hydraulic arm competition, Addovedi TechFest
- NCC **B** & **C** certificate holder