PRADHUMAN KUMAR

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Education

Narula Institute of Technology **Aug 2022 – Present**
Bachelor of Technology in Artificial Intelligence and Machine Learning | Avg CGPA 8.6 *Kolkata, West Bengal*

Government Polytechnic Nirsa **Aug 2019 – Aug 2022**
Diploma in Mechanical Engineering | 83% *Dhanbad, Jharkhand*

Saraswati Shishu Vidya Mandir **Till Mar 2019**
Matriculation | 82% *Giridih Jharkhand*

Experience

Intern at Coding Raja Technologies **Sep 2023 – Oct 2023**

- **Image Classification for Food Recognition**
  - Developed a CNN model using TensorFlow/Keras for food image classification.
  - Achieved an accuracy of over 85% on a Kaggle dataset comprising 50+ food categories.
  - Utilized advanced data preprocessing, model evaluation, and training techniques to reduce training time.
- **Sentiment Analysis on Social Media Data**
  - Built a sentiment analysis model with SVM and TF-IDF to classify social media posts as positive, negative, or neutral.
  - Optimized text preprocessing steps, achieving 90% classification accuracy and reduced false positives by 15%
  - **Tech Stack**: Python, Machine Learning, CNN, TensorFlow, Keras, NLTK, Scikit-learn, SVM, TF-IDF, Data Preprocessing, Text Preprocessing, Data Evaluation

Projects / Achievements

Voice-enabled map (Group Project)

Bharatiya Antariksh Hackathon 2024 *Finalist (Top 30 teams)*

- Developed a Python-based geospatial mapping application with a voice-enabled UI for easy navigation.
- Included features such as zooming, location marking, and layer selection (e.g., airports, railway stations).
- Enhanced accessibility and user engagement, receiving positive user feedback.
- **Tech Stack**: Python, Machine Learning, NLP, Flask, HTML, CSS, Voice Commands

Diseases Prediction *multiple-diseases-prediction*

- **Heart Disease Prediction**: Created a logistic regression model to predict heart disease risk based on clinical data (age, cholesterol, blood pressure, etc.), reaching **88%** accuracy and reducing model complexity by 10%.
- **Diabetes Prediction**: Developed an SVM-based predictive model for diabetes risk, achieving a sensitivity of 90% using health indicators (glucose, BMI, age, etc.).
- **Additional Machine Learning Projects**: Implemented various predictive and classification models, including Parkinson's Disease Prediction, Loan Prediction, House Price Prediction, Calories Burnt Prediction, and Spam Mail Detection.
- **Tech Stack**: Python, Pandas, NumPy, Scikit-learn, Matplotlib, Logistic Regression, SVM, Model Optimization.

Technical Skills

Languages : JAVA, Python, Machine Learning, Flask, SQL

Tools : MS Word, MS Excel, MS PowerPoint