

# SASWAT SUBHADARSI PATTNAIK



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## SKILLS

### Machine Learning

Linear Regression, Logistic Regression, Decision Trees, Random Forests ,Gradient Boosted Machines (XGBoost, LightGBM) ,Clustering Techniques (K-Means, DBSCAN, Hierarchical Clustering) ,Dimensionality Reduction (PCA, t-SNE, UMAP)

### Natural Language Processing (NLP)

Text Preprocessing: Tokenization, Lemmatization, Stopword Removal, Feature Extraction, Contextual Embeddings (BERT, RoBERTa, CodeT5) , Text Classification, Sentiment Analysis, Question-Answering Systems ,Fine-Tuning Pre-trained Models for Custom Tasks , Sequence-to-Sequence Models (Translation, Summarization)

### Deep Learning & Neural Networks

Attention Mechanisms and Self-Attention ,BERT, GPT, and CodeT5 Implementation and Fine-Tuning

### Reinforcement Learning

Q-Learning, Deep Q-Networks (DQN) , Policy Gradient Methods ,Environment Design and Optimization (OpenAI Gym)

### Web Development

HTML, CSS, JavaScript (learning) , Node.js, React, MongoDB, Figma Designs

## PROJECTS

Breast cancer classification use Deep Learning techniques

Built a custom logistic regression model for sentiment analysis of tweets and compared it's results with the results of sentiment analysis done by transformers.

Building a custom AI teaching bot, which teaches data analysis in gamified manner for easier understanding, using a custom dataset and CodeT5.

Building a custom Machine learning assistant which provides real time feedback of code and offers solutions to questions.

## EXPERIENCE

Teaching assistant for Machine Learning at college:

Taught Supervised Machine Learning techniques and Basics of Neural Networks to students and helped in building linear regression, logistic regression and other types of models.

## EDUCATION

Pursuing Bachelors of Technology in Computer Science Engineering and Applications at Indira Gandhi Institute of Technology, Sarang.

CGPA (till 3<sup>rd</sup> sem) – 8.96

Completed higher secondary education from D.A.V. Public School Unit 8, Bhubaneswar securing 86.8% in the year 2023

## SOFT SKILLS

Great at team coordination and team management. Proficient in English and group tasks.