







SUMMARY

With a robust background in mathematics, statistics, and computer science, I am a dedicated practitioner in the fields of Artificial Intelligence and Machine Learning (AIML). My focus lies in mastering Natural Language Processing (NLP) and Neural Networks, substantiated by practical projects and academic achievements.

Beyond a beginner's level, I am eager to contribute my skills and knowledge to an internship role in AI/ML applications. My proficiency, coupled with a deep understanding of AIML principles, positions me as a capable candidate ready to take on challenging projects and add value to your team.

WORK EXPERIENCE

Core Team (Technical) | SKEPSIS - October, 2023 - Present

SKEPSIS AI/ML Core Member with a strong foundation in mathematics, statistics, and computer science. Specializes in Natural Language Processing and Neural Networks, with significant project and academic experience. Proactive and ready to apply skills and knowledge in AI/ML applications, providing value through challenging projects.

Projects:

- 1. Airplane Satisfaction Prediction
- Description: Predicting passenger satisfaction levels for airline services, involving comprehensive data analysis and machine learning techniques. Utilized predictive models to enhance understanding of factors influencing passenger satisfaction, contributing valuable insights for the aviation industry.
- Repository: https://github.com/Soumedhik/Airplane-Satisfaction-Prediction

2. Face Tracking with VGG16

- Description: A comprehensive solution for face tracking, covering image capture, data augmentation, dataset creation, and face tracking model development. Utilized TensorFlow and Keras with VGG16 for facial classification and precise bounding box prediction.
- Repository: https://github.com/Soumedhik/-Face_Tracking_VGG16

3. LeNet Malaria CNN Classifier

- Description: Implemented a Convolutional Neural Network (CNN) using LeNet architecture to classify malaria images. Contributed to the medical field by providing an effective tool for automated malaria diagnosis.
- Repository: https://github.com/Soumedhik/LeNet-Malaria-CNN-Classifier

4. MNIST Digit Classification with TensorFlow and Keras

- Description: Implemented a simple neural network using TensorFlow and Keras for accurate digit recognition in the MNIST dataset. Showcased the power of neural networks in pattern recognition.
- Repository: https://github.com/Soumedhik/MNIST-Digit-Classification-with-TensorFlow-and-Keras

5. Mail Spam Classifier

- Description: Developed a spam classifier using machine learning techniques to address the issue of email spam. Aimed to enhance email security and filter out unwanted spam messages effectively.
- Repository: https://github.com/Soumedhik/Mail-Spam-Classifier

6. Handwritten Digit Recognizer

- Description: Implemented a handwritten digit recognizer, showcasing the effectiveness of decision trees in accurate digit identification through pattern recognition.
- Repository: https://github.com/Soumedhik/Handwritten-Digit-Recognizer-using-Decision-Tree
 - The team aims to promote AIML research and development among students and faculty, organize and manage

the club's activities, work on AIML projects, publish papers, and blog posts.

EDUCATION

Bachelor of Technology - B.Tech. of Computer Science | January, 2022 - September, 2026 | Sister Nivedita University, Kolkata

SKILLS

Technical Skills: • - Programming Languages: Python, Java, C++, C • - Machine Learning Frameworks: TensorFlow, PyTorch, scikit-learn • - Data Analysis: Pandas, NumPy, SQL • - Statistical Analysis: Statistical modeling, Hypothesis testing, Bayesian statistics, Regression analysis • - Data Visualization: Matplotlib, Seaborn, Tableau, Power BI • - Big Data Technologies: Hadoop, Spark, Distributed computing frameworks • - Deep Learning: Neural networks, Convolutional Neural Networks (CNN), Recurrent Neural Networks (RNN), Transfer learning • - Natural Language Processing (NLP): NLTK, SpaCy, Named Entity Recognition (NER), Text classification • - Feature Engineering: Dimensionality reduction, Feature scaling, Feature extraction, Time-series feature engineering • - Model Evaluation: Cross-validation, Precision, Recall, F1-score, ROC analysis • - Version Control: Git, GitHub, Git branching strategies • - Collaborative Tools: Jupyter Notebooks, Google Colab, Agile methodology, Project collaboration tools • • Soft Skills: • - Problem Solving: Critical thinking, Analytical skills, Creative problem-solving, Algorithmic thinking • - Effective Communication • - Team Collaboration • - Adaptability • - Continuous Learning

SOFTWARE

Programming Languages: • Python (NumPy, Pandas, scikit-learn) • Java • C++ • C • • Machine Learning Frameworks: • TensorFlow • PyTorch • scikit-learn • Keras • • Data Analysis: • Pandas • NumPy • SQL • • Statistical Analysis: • Statistical modeling software (e.g., R) • Bayesian statistics tools • • Data Visualization: • Matplotlib • Seaborn • Tableau • Power BI • • Big Data Technologies: • Hadoop • Spark • Distributed computing frameworks • • Deep Learning: • Neural network development environments • Deep learning frameworks (TensorFlow, PyTorch) • • Natural Language Processing (NLP): • NLTK • SpaCy • NLP libraries and frameworks • • Version Control: • Git • GitHub • • Collaborative Tools: • Jupyter Notebooks • Google Colab • Agile project management tools

SOCIAL LANGUAGES

LinkedIn

https://www.linkedin.com/in/soumedhik-bharati-50b2bb203/

English, Hindi, Bengali, German