

VINAY SANKAR PERNA

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EDUCATION

VelTech University

Bachelor of Technology in Computer Science and Data Science

Cumulative GPA: 3.5 /4.00

Chennai, India

August 2024

- Honors: 2023 Codeathon Championship
- Relevant Coursework: DSA, Machine Learning, Data Mining, Statistical Methods for Data Science, Big Data Analytics

PROJECTS & EXPERIENCE

VelTech University

AI Chatbot for College Website

Chennai, India

June 2023

- **Implemented Python Flask Framework:** Developed backend functionality using the Python Flask framework, ensuring seamless integration with the college website's infrastructure and enhancing scalability.
- **Utilized State-of-the-Art Transformer Models for NLP:** Integrated advanced transformer models like BERT for natural language processing, enabling the chatbot to comprehend and respond to nuanced user queries with high accuracy.

VelTech University, Data Science Capstone Project

Object Detection and Alert System for Visual Aid

Chennai, India

May 2024

- Implemented an object detection and alert system using YOLO v8, a state-of-the-art CNN, to detect objects in real time.
- Developed cross-platform applications for web, iOS, and Android using Flutter to provide accessible interfaces for visually impaired users.
- Integrated sound alerts to inform users about detected objects and their distances, enhancing situational awareness and navigation assistance for the visually impaired.

Harvard University, CS50 Capstone Project

Online Movie Recommendation System

Online

Jan 2024

- Developed a web-based platform for movie recommendations, integrated user authentication, and collaborative filtering algorithms.
- Implemented real-time movie suggestions based on user ratings and preferences using Python for backend logic and Flask or frameworks.
- Utilized collaborative filtering algorithms like Singular Value Decomposition to personalize movie recommendations, enhancing user experience and engagement.

Harvard University, Programming with Python Capstone Project

Sentiment Analysis on Instagram

Online

Apr 2024

- Conducted sentiment analysis (positive, negative, neutral) on comments and posts from Instagram using advanced natural language processing techniques.
- Utilized Python with NLTK or for text preprocessing and sentiment analysis algorithms. Integrate Instagram Graph API for data extraction and implement machine learning models to classify sentiment, providing insights into public opinion trends on the platform.

Personal Project 1

Sales Prediction for Amazon Products

Chennai, India

Jan 2023

- Developed a model to predict sales of Amazon products based on historical data and relevant features.
- Utilized Python with libraries like pandas, scikit-learn, and TensorFlow for data preprocessing, feature engineering, and building machine learning models. Implemented regression linear regression and decision trees to forecast sales volume and trends accurately.

CERTIFICATIONS

- **CS50** — Harvard University (David J. Malan)
- **Machine Learning** — Stanford University (Andrew Ng)
- **Applied Statistics** — Stanford University (Guenther Walther)
- **Programming with Python** — Harvard University (David J. Malan)
- **Google Data Analytics Professional Certificate** — Google
- **Data Science Professional Certificate** — Harvard University
- **Tableau** — Internshala

🔗 INTERNSHIPS

AICTE, Amazon Web Services

Remote

AI / ML Intern

Jul 2023

- Utilized AWS Machine Learning Services: Applied AWS services such as SageMaker for building, training, and deploying machine learning models.
- Developed AI-Driven Applications: Designed and deployed AI-driven applications using AWS infrastructure, ensuring scalability and high performance.
- Implemented Data Management and Analysis: Managed and analyzed large datasets using AWS S3 and RDS, creating predictive models and visualizations to extract actionable insights.

Technologies/Skills: AWS SageMaker, AWS S3, AWS RDS, Machine Learning, AI Development, Data Analysis, Cloud Computing

AICTE, Amazon Web Services

Remote

Data Analyst Intern

Feb 2023

- Analyzed Large Datasets: Utilized AWS services such as S3 and RDS to manage and analyze large datasets, extracting actionable insights.
- Developed Data-Driven Applications: Designed and deployed data-driven applications using AWS infrastructure, ensuring high availability and scalability.
- Implemented Data Management Solutions: Created efficient data storage solutions and dashboards for data visualization, improving data accessibility and decision-making processes.

Technologies/Skills: AWS S3, AWS RDS, Data Analysis, Cloud Computing, Data Management, Data Visualization

Blue Prism University

Remote

Robotic Process Automation Intern

Dec 2021

- Designed and implemented Robotics Process Automation (RPA) solutions using Blue Prism, automating repetitive tasks and improving operational efficiency.
- Developed and deployed RPA bots to streamline business processes, reducing manual effort and enhancing accuracy through automation initiatives.
- Conducted process analysis to identify automation opportunities, optimizing workflows and contributing to overall productivity gains.

Technologies/Skills: Blue Prism, Process Analysis, Workflow Automation, Bot Development, Troubleshooting.

SKILLS

- **Programming Languages:** C++, Python, R
- **Machine Learning:** *sci-kit-learn*, TensorFlow, PyTorch
- **Big Data Technologies:** Hadoop, Spark, AWS, GCP.
- **Data Visualization:** Tableau, Matplotlib, ggplot2
- **Natural Language Processing:** Text processing, sentiment analysis, language modeling.
- **Deep Learning:** Neural networks, CNN, RNN
- **Database Management Systems:** MySQL, SQL, MongoDB.