SAURABH VARPE

SOFTWARE ENGINEER

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Profile

3+ years of experience applying cutting-edge AI/ML solutions, including generative models and NLP chatbots, to solve complex business problems. Skilled in implementing machine learning using Python libraries to achieve significant results. Experienced collaborator adept at translating business goals into actionable data strategies. Expertise in data analysis, visualization, and model implementation positions me to contribute to the forefront of AI/ML at a progressive organization**.**

Work Experience

Software Engineer at CTGT Innovation Pvt Ltd **Nov 2022 – Present**

- Developed AI-based solutions, including an OpenAI-powered resume parser integrated into our product to streamline candidate evaluation and talent acquisition processes.
- Engineered and implemented a Python-based data transformation pipeline, converting Excel data structures into XML BOM (Bill of Materials) format. Streamlined data integration, enhanced automation in Product Lifecycle Management (PLM), and improved operational efficiency.
- Transformed data into actionable insights through rigorous analysis and clear visualizations for effective communication to both technical and non-technical stakeholders.
- Collaborated seamlessly across teams to ensure smooth implementation and utilization of machine learning, generative AI solutions, driving business value.
- Contributed to a Natural Language Processing (NLP) project

Instructor Python Data Science at NMD Pvt Ltd **Jan 2021 to Oct 2022**

- Instructed Python and Data Science, focusing on data analysis, machine learning, and statistical modeling using libraries like Pandas, NumPy, and Scikit-learn. Performed Exploratory Data Analysis (EDA) on various datasets to gain insights and prepare data for further analysis.
- Delivered project-based training to enhance skills in predictive modeling, data-driven decision making, and automation, empowering learners with AI techniques.

Skills

- **Data Analysis & Visualization:** Proficient in data preprocessing, cleaning, and wrangling with libraries like Pandas, NumPy. Adept at creating informative data visualizations using Matplotlib, Seaborn to communicate insights effectively.
- **Machine Learning & Predictive Modeling:** Skilled in various Machine Learning techniques including Linear/Logistic regression, KNN, and Ensemble methods like Random Forest. Proficient in uncovering hidden patterns and insights through Unsupervised Learning methods, contributing to data-driven decision-making.
- **Deep Learning Foundations:** Well-versed in Deep Learning concepts like Perceptron's, Neural Networks, and Convolutional Neural Networks. Familiar with data augmentation techniques for enhanced model performance.
- **Natural Language Processing (NLP):** Proficient in NLP using libraries like NLTK and TensorFlow. Experienced in text pre-processing techniques like TF-IDF, Bag-of-Words, tokenization and word embedding analysis.
- **Generative AI & OpenAI Integration:** Experienced in leveraging the text generation capabilities of OpenAI, Davinci models to create human-like content, Gemini AI
- **Data Processing:** Outlier Detection, Imputations, Feature Scaling, Data Imbalance Handling, Hypothesis Testing
- **Python** (Pandas, NumPy, scikit-learn.) & Development Tools (Jupyter, PyCharm Visual Studio).
- Data Management (MySQL, MongoDB, Git).

Projects

AI-Powered Resume Parser

- **Developed and deployed two AI-powered resume parsers:** achieving an impressive 99% accuracy rate by leveraging OpenAI, Python, and natural language processing (NLP) libraries like NLTK and spaCy.
- **Role and Contribution:** Led the development and implementation of the resume parsers, identifying key data fields for extraction, such as name, email, phone number, education, work experience, and skills. Collaborated with teams to integrate the solution into the company's Applicant Tracking System (ATS).
- **Approach and Methodology:** Utilized OpenAI and a range of NLP techniques to efficiently process and extract data from resumes. Employed machine learning algorithms to ensure high accuracy and scalability in parsing diverse resume formats
- **Achievements and Outcomes:** The AI-powered resume parser is now utilized by over 700 recruiters, significantly enhancing recruitment efficiency by automating resume screening and extraction tasks.

TensorFlow Object Detection

- Implemented TensorFlow-based object detection and utilized computer vision to intelligently recognize unknown objects in the transportation domain.
- Integrated the Mask R-CNN model for object detection, enhancing the accuracy and precision of identifying and labeling objects
- Employed Makesense.AI or LabelImg tool for efficient annotation, facilitating the training process and ensuring the model's ability to recognize and classify objects in diverse scenarios.

2D-Schematic Automation

- Demonstrated exceptional performance with a 99% efficiency rate across all scripts, ensuring accuracy and reliability in the automated processing of wire harness data for Mercedes-Benz.
- Provided detailed log reports that offered an accessible and transparent means for easy monitoring and in-depth analysis of the automated data processing tasks, contributing to the overall efficiency and effectiveness of the project.
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Project Management and Execution

- NX12 Automation with Python
- IZ-Chatbot (Teamcenter)
- Customized Watermark Generation for PDFs Using PyPDF4
- PLM XML Import
- Feedback Form Generation Using Lua LaTeX Language

Certification

- Deep Learning for Image Using TensorFlow 2 | Udemy, May 2023
- Python Certification | Kaggle, Feb 2023
- Create Azure Bot | Great Learning, Nov 2022

Education

Dr. D Y Patil College of Engineering, Pune 2015 – 2020

Personal Details

- DOB: 25/07/1998
- Languages: English, Hindi, Marathi