SAURABH VARPE

SOFTWARE ENGINEER

saurabh.varpe01@gmail.com | +91 9665044609 | Pune, Maharashtra | GitHub | LinkedIn | Portfolio

Profile

4+ 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-powered solutions, including an **OpenAI-based resume parser** integrated into our product to streamline candidate evaluation and **enhance talent acquisition**.
- Engineered a **Python-based pipeline** to convert Excel data into XML BOM format, improving data integration and **automation** in PLM.
- **Transformed** raw data into **actionable insights** through in-depth analysis and clear visualizations, ensuring **effective communication** with both **technical and non-technical stakeholders**.
- Collaborated effectively across teams, ensuring smooth implementation of **machine learning** and **generative AI solutions**, driving measurable **business value**.
- Contributed to an **NLP project**, expanding the scope of **natural language understanding** in real-world applications.

Junior Software Engineer at Unibest Techno Solution, Pune **Jan 2021 to Oct 2022**

- Led **NX12 integration**, automating processes to enhance **Product Lifecycle Management (PLM)**.
- Developed an **Azure-based chatbot** to improve communication and streamline **support processes**.
- Created **Python automation solutions** for **data integration** and system optimization.
- Utilized **Python libraries** (Pandas, NumPy) and automation tools to **streamline processes**.
- Engineered and automated **mechanical systems** using Python to optimize **operational efficiency**.

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.
-

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