Kowshik Kesavarapu

Poole, United Kingdom, UK

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Personal Profile

Skilled Data Scientist with a strong foundation in machine learning, NLP, and advanced analytics. Backed by 3+ years of practical experience and an M.Sc. in Data Science from the University of Surrey. At Yunex Traffic Ltd, delivered innovative data solutions in demand forecasting, automated classification, and developed a Chat-GPT-like conversational agent using the Llama language model. Proficient in Python and R, with a knack for data storytelling. Eligible for employment without the need for sponsorship. Passionate about enhancing processes and guiding teams with data insights. Eager to contribute to an innovative organization, amplifying its analytics potential.

Skills

Technical Skills	-	Python (Pandas, Pytorch, NumPy, Scikit-learn. etc.), R(ggplot2), Tensor Flow, LLM's, Neural Networks, Machine Learning, Java, SQL, AWS, GCP, Data Visualization, Flask.
Soft Skills	-	Time Management, Leadership, Teamwork, Team Management, Project management, Scrum, Problem-solving, Documentation, Engaging Presentation, Fast Learner.
Miscellaneous	-	Linux, Microsoft Office, Firebase, Git, Microsoft Excel.

Work Experience

Yunex Traffic   Poole, UK

Data Scientist   August 2022 – Present

- **Chat Bot Using LLM:**
  - Built conversational agent like **Chat-GPT** using **Llama** as language model.
  - This was fine-tuned on company's tender data. Integrated with internal tools using **Hugging Face** and **Flask** to automate and streamline tender generation.
  - Reduced manual effort for repetitive tasks. Enabled more efficient operations.
- **Classification based on Text.**
  - Optimized an in-house Incident Management tool using a Naïve Bayes classification model to efficiently categorize tickets and recommend actions.
  - **This Significantly reduced time spent on bill generation, increasing billing frequency from monthly to bi-weekly. Enhanced overall workflow and efficiency of the field services team.**
- **Traffic demand forecasting:**
  - Forecasted future traffic demand using real-time traffic loop data and time series models like **Prophet** and **SARIMA**.
  - Developed proof of concept for optimizing route planning and traffic light timing based on real-time forecasts. Identified best forecasting model for accurate and low-latency predictions.
- **Licence Plate detection:**
  - Detected vehicles and extracted license plates from video feed using **OpenCV** computer vision algorithms.
  - Implemented **Tesseract** OCR to identify license plate numbers from images. Counted total vehicles on highway by processing video frames.
- **Business Impact Project:**
  - Conceptualized and deployed cloud-based website to increase student access to **STEM** education.
  - Created engaging learning activities tailored for different age groups.
  - Increased educational outreach and promoted greater interest in STEM fields.

Cognizant Technology Solutions   Hyderabad, India

Analyst   January 2019 – August 2021

- Worked on insurance domain project using mainframe technology, gaining experience with large-scale legacy systems.

- Developed database scripts to efficiently retrieve and analyse data. Optimized queries for performance.
- Identified and resolved countless bugs during development, implementing permanent code fixes for recurring issues. Improved overall system stability.
- Automated code base upgrade from COBOL 3 to COBOL 4 using Python, saving significant manual effort. Streamlined and accelerated process.
- Led team of 5 developers as a team leader. Provided guidance and mentoring. Coordinated task prioritization and planning. Ensured on-time, high-quality delivery.

Education

University of Surrey   Guildford, UK
MSc in Data Science   2021-2023

- Expected grade of 2.1
- **Courses**: Cloud Computing, Database Systems, Practical Business Analytics, Data Science Principles And Practices, Machine Learning And Data Mining, Natural Language Processing, AI And AI Programming, Computational Intelligence

KL University   Guntur, India
BTech in Computer Science with Specialization in Data Engineering   June 2014-May 2018

- Graduated with Distinction

- Worked as a President of the Student Committee

University Projects

Android App for sending course-specific information   Guntur, India
Kl University   Feb 2016 - Apr 2018
- Developed Android app to send class and organization notifications to college students.
- Implemented PHP backend and integrated GCM for notifications management.
- Sandbox tested with 1000+ installs, refined based on feedback, and pitched as innovative notification system at a startup summit.

Analysis of Chicago taxi data   Guildford, UK
University of Surrey   Nov 2022 - Dec 2022
- Analyzed 2 years of Chicago taxi data to identify demand trends and relationships.
- Developed and evaluated VAR, MLP, and RNN models to forecast passenger demand and optimize dispatching.

Building a Chatbot to provide information on Restaurants on the University Campus   Guildford, UK
University of Surrey   Nov 2022 - Dec 2022
- Developed chatbot providing restaurant information using NLP concepts including intent recognition, NER, and dialogue flow.
- Implemented LSTM for intent recognition, training on labelled sample data.
- Created hybrid NER model with SPacy, training blank model to identify tags.
- Used heuristics for dialogue flow management.
- Implemented CI/CD pipeline for continuous development.