Pranit Sehgal

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EDUCATION

ARIZONA STATE UNIVERSITY
Master of Science
Computer Engineering
CGPA: 3.52/4.00
08/2022 - 05/2024

SVKM'S NMIMS UNIVERSITY
Bachelor of Technology
Computer Science
CGPA: 3.59/4.00
06/2018 - 05/2022

PUBLICATIONS

Gradient Boosting Approach for Sentiment Analysis for Job Recommendation and Candidate Profiling: IEEE Bombay Section Signature Conference.

- Implemented Gradient Boosting for Sentiment Analysis in job recommendation, achieving 78.08% accuracy and 0.819 AUC by mining Twitter and Indeed data. Demonstrated potential of NLP for enhanced candidate profiling.

SKILLS

Programming Languages:
- Python
- C#/C++
- SQL
- Java

Technologies:
- Linux/Unix
- Scikit Learn
- Machine Vision
- TensorFlow
- Keras
- PyTorch

Areas of Expertise:
- Data Modeling
- Data Analysis
- Machine Learning
- Deep Learning
- Agile Methodologies
- Natural Language Processing
- Data Visualization
- Embedded Machine learning

PROJECTS

RHYTHM PASSWORD - KEYSTROKE DYNAMICS AUTHENTICATION
- Developed Rhythm Lock, merging keystroke dynamics and TensorFlow Lite-based Machine Learning and attained 92% accuracy in authenticating users based on unique rhythm patterns inherent in their keystrokes.
- Optimized and fine-tuned ML models using Keras, for real-time analysis on Arduino Nano for efficient and secure user authentication.

AI-DRIVEN CONTENT FUSION AND VIDEO GENERATION PLATFORM
- Developed a web app leveraging OpenAI's GPT-3.5-turbo and DALL-E for dynamic content generation through advanced prompt chaining. Utilized LLMS and Gen AI technologies for creative synthesis of text and images.
- Engineered API integrations focused on scalability and reliability. Utilized MoviePy for visual content and Streamlit for interactive user experience.

VOICE RECOGNITION FOR MENTAL HEALTH MONITORING
- Engineered a real-time voice recognition system leveraging Arduino technology to detect mental health-related keywords, enhancing data mining and analysis capabilities in psychological research.
- Managed data collection of 2531 audio samples and achieved a 96.8% accuracy rate in keyword detection through machine learning techniques.

TWITTER SENTIMENT ANALYSIS APPLICATION
- Led the development of a Sentiment Analysis App utilizing a Machine Learning RoBERTa-based model, TensorFlow, Keras and Flask framework.
- Achieved a precision rate of 72% for sentiment assessment, notably for diverse tweets, by implementing Natural Language Processing techniques for efficient data analysis of user-generated tweets.

WORK EXPERIENCE

SOFTWARE ENGINEER - AUTOMATION
Kalpataru Power Transmission Limited   02/2022 - 05/2022
- Developed a Conversational AI Chatbot on Yellow.ai using Python and NLP, optimizing IT support with task automation, and designed an admin panel in C# and .NET to streamline API calls, reducing response time by 30%.
- Engineered a real-time sensor data bot in Java and PostgreSQL, facilitating transmission of sensor data to a central database for efficient analysis.

SOFTWARE DEVELOPER - ANALYST
Metropolitan Stock Exchange of India Ltd   11/2021 - 01/2022
- Utilized Python, leveraging NumPy and Matplotlib, for predictive analysis of commodity trading data, directly supporting client decision-making processes. Enhanced stock market dashboard functionality with advanced data visualization techniques, increasing client engagement by 25%.
- Developed interactive survey forms for clients using HTML, SQL and Java.

UI/UX DEVELOPER
Vera BuildCon   06/2020 - 09/2020
- Led the creation of intuitive websites and mobile prototypes using Figma, significantly improving the UI/UX development process and efficiency.