MANAN BEDI

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EDUCATIONAL QUALIFICATIONS

Shaheed Sukhdev College of Business Studies, University of Delhi	Bachelor of Science with Honors, Computer Science Academic Excellence Award – 1st Position, GPA: 9.77/10	July 2022

TECHNICAL SKILLS

Languages: Python, R, Advanced SQL, C++, Java

Data Science Tech: Predictive Modelling, Statistical Analysis, Data Visualization (Power BI and Looker Studio), Machine Learning, Deep Learning, NLP, LLM, GenAI, MLOps (Grafana, Prometheus, MLFlow, Kubeflow, Docker), Prompt Engineering, Reinforcement Learning

Frameworks: Flask, Tensorflow, PyTorch, TFOD

Technologies: Git/GitHub, Web Scraping, Prompt Engineering, AWS, SAP Analytics Cloud, Microsoft Excel

WORK EXPERIENCE

■ **Paytm (Senior Associate - Business Analyst – Full Time – Delhi, India)** **[May 2022 - Present]**
- **Performance Tracking:** Tracking key metrics like GMV, MTU, Transactions, Deployed Devices to **identify** trends and reporting
- **Data Visualization:** Creating Dashboards on **Looker Studio** that present complex data in an interactive format for Investors'
- **Automation:** Developing **Python** and **Google AppScript** to streamline and fasten the analysis and reporting needs. Automation not only streamlined the previous task of **2 days to 2 minutes** but also resulted in 0 errors which were earlier around **~7%**
- **Data Modelling and Analysis:** Analyzing large datasets using **Python, SQL and Excel** to identify trends, patterns, and insights that can help the organization make Data Driven Decisions. Developing **Predictive Models** using **ML** to forecast future trends.
- **PG Cost Optimization and AWS Cost Tracking:** Collecting and Analyzing data on PG Costs, including Transaction Fees, Gateway and processing fees to identify cost saving opportunities. Able to save around **~1 cr** till now.
- **Estimation and Forecasting:** Calculating the projected GMV, EBIDTA, **Net Payment Margin**, Take Rate effectively to figure out if any hike or shortfall is there in the business plans and reporting them. Thereby increasing the revenue by **Estimated Growth %**

■ **Socio Global Brands Inc., Canada (Manager - Technology)** **[Mar 2021 – Oct 2021]**
- Worked on a **Centralized Application** for sending and receiving donations for various Institutions based in **US and Canada**
- Implemented **robust data security measures**, including password encryption, to safeguard sensitive user information.
- Developed Backend using **Python Flask** Framework, integrated with PostgreSQL DB, and frontend using HTML, CSS, Bootstrap
- Added features like **Stripe** PG Integration, Mass Emailing List, Personalized Pages, etc.

■ **Let the Data Confess Pvt. Ltd. (Data Science – Intern)** **[Sep 2021 – Jan 2022]**
- Authored a series of engaging and informative blog posts on various Data Science topics, showcasing a grasp of complex concepts.
- Achieved remarkable success on Quora by garnering over **20,000** views within just two months for solving queries.
- Played a pivotal role in promoting data within the Data Science community through informative and accessible content.

■ **AnalytixWare Technologies (Data Science – Intern)** **[Mar 2021 – Jun 2021]**
- Worked on a topic-based document similarity project using NLP
- Experimented with multiple document similarity models and techniques like Cosine-Similarity to identify the similar documents out of a large corpus of documents provided leading to an organized collection of documents

PROJECTS (AND PUBLICATIONS)

■ **Legal Text Summarizer (NLP)** **[Link]**
- Implemented Legal Text Summarizer with NLP, **fine-tuning** HuggingFace API, enhancing legal document comprehension.
- Integrated the project seamlessly with **FastAPI** to provide a user-friendly interface for inputting legal text and receiving summarizations, enhancing accessibility and usability for end-users. Evaluated on **Rough** Score.
- Developed the MLOps Pipeline to efficiently package, track and deploy the application using MLFlow, Docker, Prometheus

■ **Customer Churn Prediction (ML)** **[Link]**
- Developed Churn Prediction system, optimizing customer retention efforts for business growth.
- Integrated with Web using Flask Framework and deployed on Heroku. Achieved more than **90%** accuracy.

■ **Flipkart Product Review Scraper** **[Link}**
- Created a Flipkart Product Review Scraper using **BeautifulSoup** Library, enabling user-friendly product review extraction from DB.
- Created Web Application for it using Flask and deployed on Heroku Cloud

■ **Weather Details Chatbot using Google Dialogflow** **[Link]**
- Created a Chatbot using Google DialogFlow to tell the weather of the city entered by the user
- Defined Intents, Entities, extracted weather details using **OWM API** in Python
- Integrated with Telegram and Website

■ **Automatic Code Generator (GenAI)** **[Link]**
- Developed an Automatic Code Generator using OpenAI GPT-3.5 API, implementing **Few-Shot Prompting** with **Prompt Chaining** for context preservation. Also converted to Chrome Extension
- Enhanced code generation accuracy and contextual understanding by **fine-tuning** the model for improved results.

■ **Self Driving Car Agent (Reinforcement Learning)** **[Link]**
- Developed a self-driving car agent model using the OpenAI Gym Toolkit and trained it using the PPO (Proximal Policy Optimization) algorithm from the stable_baselines3 module
- Trained the model over 1.5 million timesteps, achieving a high performance score of 680, demonstrating effective agent behavior and policy optimization for autonomous navigation.

■ **Youtube Video Script Generator (LLM and GenAI)** **[Link]**
- Developed a YouTube Video Script Generator using LangChain, enabling users to effortlessly create compelling video scripts by simply entering a topic, with prompt templates and Few-Shot Learning enhancing the quality and accuracy of generated scripts.
- Integrated a flexible choice of models: OpenAI API (user-provided key) or Hugging Face API (default), powered by a Text-to-Text Generation Model; built an intuitive UI using Streamlit for a seamless user experience.

PUBLICATIONS

- **Application of Deep Learning Techniques for COVID-19 Management [Springer]** **[Link]**
    - Understanding COVID-19: The Role of Computational Intelligence Research Paper (Published in Springer). More than 50 citations
- **Analysis of COVID-19 Tracking Tool in India: Case Study of Aarogya-Setu Mobile Application [ACM-Journal]** **[Link]**
    - The paper analyzes AI Powered features incorporated into the Application for COVID-19 Tracking in India. 50+ Citations and 12k Downloads
- **YouTube Videos Clickbait Detection [Under Review]**
    - Conducting research on YouTube video clickbait detection using Deep Learning and Large Language Models (LLMs) by implementing techniques such as video chunking and optimizing hyperparameters to improve model performance.
    - Fine-tuning parameters such as learning rate, batch size, and sequence length, while leveraging chunked video data for efficient processing, to develop a scalable, high-accuracy solution for automated content classification and clickbait identification.

SPEAKER SESSIONS

- Developers Week Conference *(Santa Clara, California, United States of America) [Selected one of the 30 out of 500+ submissions]* *[Link]*
- React Delhi Conference (Microsoft Office, Gurugram, India)
- Association for Computing Machinery Chapter (University of Delhi)
- GDG SRMIST (SRM Institute of Technology)
- GDSC SRCSAW (University of Delhi)

AWARDS AND ACHIEVEMENTS

- **1st position** - Class 12th (Science Stream) – Lovely Public Sr. Sec. School, P.D. Vihar, New Delhi
- **Most Innovative Project –** Hackathon (Out of 45+ teams) – SGGSCC, University of Delhi
- **Rising Star of the Month (Paytm) –** Award given for automating various reports to reduce the overall Turnaround Time and taking ownership
- **1st Position –** Bachelors in Computer Science [University of Delhi] and got a Merit-based renumeration amount by Government of Delhi
- **ML Contributor –** One of the 50 contributors (Leveraging ML to predict accomplishment rate of startup) at Omdena Pennsylvania, USA
- **Judge and Mentor –** Judged and mentored multiple hackathons around Globe including Hack the North, Canada and NASA International Space Apps Hackathon. Also mentored various Open-Source projects
- **President (ACM-SSCBS) -** Co-founded the SSCBS Student Chapter. Led a team of 12 people interested in research
- **Meeting with Former President of India –** Got an opportunity to meet the Former President of India Late Dr. Pranab Mukherjee on the basis of merit

Volunteering Experience

- **Learner Success Head (Linux World India] –** Helped resolve queries of students to excel in the program of AI offered by Linux World India
- **Python Specialist Tech Volunteer [Linux World India] –** Helped resolved technical queries of the students
- Volunteered to get the medicines delivered to the COVID-19 Patients during the Pandemic . Also maintained a database of the medicines and Oxygen Cylinders available