KRISH PATIL

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Profile

Recent graduate with a Master's degree in Data Science from the University of Exeter, specialising in data analysis, statistical modelling, and machine learning. Equipped with hands-on experience in Python and SQL, and a proven track record of collaborating with cross-functional teams to generate actionable insights. Passionate about applying technical expertise and a continuous improvement mindset to drive innovation and deliver impactful solutions.

Education

University of Exeter, Master of Science in Data Science with AI **Sept 2023 - Sept 2024**

Relevant modules include:

- Machine Learning (Python), Social Network and Text Analysis (Python), Fundamentals of Data (Python), Nature Inspired Computation (Python), Computer Vision (Python)
- Dissertation: Preventing confidential data leaks through digital nudges.

University of Mumbai, BTEC (Hons) Electronics and Telecommunication (8.01/10 CGPA) **June 2019 - May 2023**

Relevant modules include:

- Data Structures and Algorithms (C++), Database Management (SQL), Deep Learning (Python), Image Processing and Machine Vision (Python), Linear Algebra, Project Management
- Final-Year Project: Decentralised crowdfunding platform on the Solana blockchain.

Work experience

TCR Innovations, Data Science Intern – Internship **March 2022 - Sept 2022**

- **Collaborated closely with internal stakeholders** to define project requirements and develop a predictive model focused on enhancing customer retention strategies. Utilised Python and SQL to analyse customer data, leading to a **significant improvement** in prediction accuracy.
- **Streamlined data processing workflows using Python**, automating repetitive tasks such as data cleaning, transformation, and integration, which increased efficiency and reduced manual intervention
- **Effectively communicated complex technical results to non-technical stakeholders** using Power BI, ensuring that insights were actionable and aligned with business objectives.

Projects

Preventing Confidential Data Leaks through Nudging | Machine Learning Project **April 2024 – Sept 2024**

- **Researched and developed an NLP model** as part of my dissertation, designed to detect and prevent confidential data leaks by triggering nudges when sensitive information is identified. Leveraged the BERT transformer to enhance the model's accuracy in identifying sensitive data. The model was hosted on a cloud-based platform to facilitate real-time interaction and monitoring.
- **Formulated a targeted research question**: "How does the implementation of AYS nudges impact user behaviour and decision-making in terms of data security?" This guided the project's focus on understanding the behavioural changes prompted by the nudging mechanism.
- **Conducted a comprehensive analysis** using survey data and interaction data from the application, evaluating the effectiveness of the nudges in preventing data leaks. This included both quantitative measures (e.g., number of prevented leaks) and qualitative feedback (e.g., user perceptions of the nudge's intrusiveness and helpfulness).

Optimising Genetic Algorithms for Complex Problems | AI Research Project **November 2023**

- **Contributed to the development and refinement of mutation strategies** (2-OPT, Bit Flip) within Genetic Algorithms, enhancing solutions for a complex multi-objective problem using large benchmark datasets

- **Analysed extensive datasets using Python** (NumPy, Pandas), which supported the identification of key trends and patterns, contributing to the overall enhancement of algorithm performance and solution quality.
- **Presented research findings** to academic supervisors, effectively communicating technical results and assisting in automating data processing tasks to efficiently handle and analyse large volumes of data across multiple datasets.

COVID-19 Tracker Project | API Integration Project **March 2022 - Sept 2022**

- **Developed a COVID-19 tracking tool** that integrated real-time data from the disease.sh API, enabling accurate monitoring of global COVID-19 trends and statistics.
- **Implemented API connections** to pull, process, and visualise data using Python, ensuring the tool was continuously updated with the latest information
- **Implemented key features** such as interactive maps and data visualisations, providing users with a comprehensive tool to monitor the pandemic's progression across different regions.

Crowdfunding Dapp based on Solana Blockchain | Blockchain Project **July 2022 – May 2023**

- **Co-created a decentralised crowdfunding platform** on the Solana blockchain, addressing challenges such as transparency, security, and anti-fraud.
- **Developed and maintained a robust backend infrastructure using Rust**, overcoming challenges related to installation and deployment with Anchor CLI, which is essential for smart contract development.
- **Contributed to front-end development using React.js and Chakra-UI**, ensuring seamless integration with the backend and enhancing user experience across the application.

Skills

- **Programming Languages:** Python (NumPy, Pandas, Seaborn, TensorFlow), SQL
- **Data Visualisation:** Power BI, Seaborn, Matplotlib

Certifications

Google Advanced Data Analytics Specialisation **Aug 2023**

- **Developed data analytics skills** including statistical analysis, predictive modelling, and data visualisation using tools such as Python, SQL, and Tableau.
- **Completed real-world projects** that involved extracting insights from complex datasets, enhancing decision-making processes, and optimising business strategies through data-driven approaches.

Applied Social Network Analysis in Python **Nov 2022**

- **Gained expertise in social network analysis** using Python, focusing on the structure and dynamics of social networks and their impact on information flow and influence.
- **Utilised libraries such as NetworkX** to analyse and visualise social networks, identifying key nodes and connections, and applying network metrics to solve practical problems.