ANANYA GUPTA

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EDUCATION

National University of Singapore   Aug 2020 - May 2024
Bachelor of Science (Honours)
- Major in Data Science and Analytics with Second Major in Innovation and Design Programme
- Relevant modules: Statistical Modelling, Data Structures & Algorithms, Big Data Systems, Machine Learning, Artificial Intelligence, Data Visualisation, Data Modelling & Computation, High-Dimensional Statistical Analysis

TECHNICAL SKILLS

- **Programming Languages:** Python, R, SQL, SAS, Java, JavaScript, HTML, CSS
- **Data Science Tools:** Jupyter, MATLAB, Tableau, React.js, Git, Docker, Apache Hadoop, TensorFlow, Apache Spark, Netlify
- **Database Platforms:** AWS, PostgreSQL, NoSQL, Firebase, Amazon Redshift, Sisence, FiveTran
- **Additional data-driven skills**: Data Analysis, Data Visualisation, ML, AI, Data Wrangling, Web Development, Data Mining

EXPERIENCE

OCBC   May 2023 - Dec 2023
Data Science Intern   Singapore
- Researched and initiated statistical models and visualisation frameworks on historical data for performance forecasting and time-series correlation to align the current metrics with the targets, expediting performance review and other decision making processes.
- Built ETL tools and automation algorithms using Python, SQL, Visual Basic to streamline the data extraction process from various sources, followed by extensive data wrangling and manipulation with SAS programs, optimising the data pipelines and improving efficiency by 200%, for data accuracy of the global metrics while querying and updating the data in a higher data warehouse.
- Established database schema with data dictionaries to develop reporting structure and align key metrics to fine-tune the data mart.
- Deployed Tableau dashboards end to end from data ingestion to user-centric, real-time visualisations for wealth and digital segments.
- Appreciated by Dept Heads for innovative product ideation and prototype for FRANKPreneurship Design Thinking Hackathon 2023.

Nugit   Dec 2021 - Jul 2022
Data Analysis and Operations Intern   Singapore
- Analysed and visualized raw CSV files and APIs to create interactive reports for clients like J&J, Kellogg's using Tableau and R.
- Achieved 91% client renewal rate by daily data cleaning and preparing to review the ingestion of data via the NLP and AI based platform, conducting back-end and front-end data checks for accuracy and designing automated reports for key business functions.
- Assessed product features with Product and Engineering team to troubleshoot bugs and deploy custom metrics using SQL and Java.

LEADERSHIP & INVOLVEMENT

NUS Statistics and Data Science Society - Vice President   Apr 2021 - Apr 2024
- Judged and led the Annual Data Analytics competition(s) in collaboration with Grab, AI Singapore for over 800 university students.
- Managed various cross-functional teams with the President, appreciated by the Science Dept. Vice Dean for two consecutive years.

PROJECTS

Transaction Simulation Model for Construcshare (Python, API, Git, Docker)   Feb 2023 - Apr 2023
- Developed an agent-based simulation model (ABM) in Python from scratch, which mimics the e-commerce transactions at Construcshare, simulating how feature changes affect the website engagement and interaction for evaluating their current strategies.
- Connected the model with an API run in Docker and an interactive frontend dashboard deployed for android version using Netlify; both tested by Construcshare's COO (Dr.Murugesan), their team of developers, and NUS professors.

Text Summarisation and Simplification (Python, MLOps)   Feb 2022 - Apr 2022
- Trained various machine learning models like RNN, LSTM, Transformer, GRU in Python, to compare the output from different research papers using quantitative metrics like precision and recall, followed by qualitative metrics like brevity.
- Successfully tested among 15 students to compare the summarising and simplifying accuracy with state-of-the-art models.

Post-discharge information management (Java, React.js, CSS, HTML, Firebase)   Jan 2022 - Dec 2022
- Built a web-application and creation tool, using React.js and Firebase database, that extracts data from the hospital database and organises it to make information accessible to patients, avoiding delayed, incomplete or complex information dispersal.
- Achieved a positive feedback on testing with over 15 nurses at Alexandra Hospital and 3 NUS professors.

Variational Auto-encoders (Python, MATLAB)   Sep 2022 – Nov 2022
- Researched on the mathematical context of auto-encoders, displayed in MATLAB and built their latent visualisations in Python.

2-Factor Authentication App - Orbital Project 2021 (PostgreSQL, CSS, HTML, JavaScript)   May 2021 - Aug 2021
- Built a 2-FA Password Manager using SQL, CSS, HTML, JavaScript, to securely store & auto-fill passcodes with single click.
- Successfully tested the password manager and chrome extension across different devices among NUS students.