# 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
- Modelled the data for performance forecasting and time-series correlation to align current metrics to predict upcoming targets.
- Built ETL tools and automation scripts using Python, VBA, M Language and SAS to streamline the data extraction from various sources followed by extensive data wrangling and manipulation to standardise the global and regional metrics with data mining tools.
- Created automated and interactive dashboards for digital and incentive wealth statements using SAS and Tableau.
- Established a database schema and data dictionaries to develop reporting structure to align key metrics and finetune the data mart.
- Product Ideation and Innovation for an OCBC-wide FRANKPreneur Design Thinking Hackathon.

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

**Purnama Outreach**                                                                                                                         Dec 2020 - Jan 2021
Market Research Analyst Intern                                                                                                                       Singapore
- Analysed past advertisements and the B2C demographics using Excel VBA to channelise the marketing initiatives.
- Developed KPIs from sales metrics, through past retail data analysis, to quantify impact and success of the advertisements.

## 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 under the Statistics & Data Science Department of NUS closely with the President.

## 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 using Netlify; both tested by Construcshare's COO (Dr.Murugesan), their team of developers, and NUS professors. Current deployment of in android version.

**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)                                               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.

**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.