

# 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 Manipulation & Analysis, Data Visualisation, Data Modelling & Computation

## TECHNICAL SKILLS

- **Programming Languages:** Python, R, SQL, Java, React.js, JavaScript, Git, Docker
- **Data Science Tools:** MATLAB, Tableau, R Studio, Hadoop, Spark
- **Libraries:** Keras, NumPy, Pandas, Matplotlib, NLTK, HuggingFace, TensorFlow
- **Workplace:** Microsoft Office Suite, Google Analytics Workspace, Facebook Business Suite, AWS Databases
- **Additional data-driven skills:** Data Manipulation, Data Analysis, Data Visualisation, Machine Learning, Artificial Intelligence, Database Systems, Data Cleaning, Data Wrangling

## WORK EXPERIENCE

### Data Analysis and Operations Intern | Nugit

Dec 2021-Jul 2022

- Analysed and visualized raw CSV files and APIs to create automated reports for clients including J&J Vision EMEA, Kellogg's, L'Oréal, Chanel using Tableau and R.
- Assessed new product features cross-functionally with Product and Engineering team to identify bugs and deploy custom metrics and platform updates based on clients' reporting needs, using SQL and Java.
- Achieved 91% client renewal rate by designing automated reports via the platform using NLP and AI, reviewing the ingestion of platform data in Sisense and conducting back-end and front-end data checks.

### Marketing Research Analyst Intern | Purnama Outreach

Dec 2020-Jan 2021

- Analysed past advertisements and the B2C demographics through 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

### Vice President | NUS Statistics and Data Science Society

Apr 2021-Apr 2024

- Judged and led the Annual Data Analytics competition(s) and industry events in collaboration with professionals from Grab, AI Singapore, TikTok and Shopee for more than 300 university students.
- Managed various cross-functional units, working directly with the President and the Statistics Department of NUS.

## PROJECTS

### Transaction Simulation Model for Construcshare

Feb 2023-Apr 2023

- Developed an agent-based simulation model (ABM) which mimics their e-commerce transaction cycles at Construcshare and depicts how the relationship between their website features affect website engagement and interaction metrics for evaluation and improvement of existing e-commerce strategies.
- Connecting this with API and an interactive frontend dashboard, it was tested by Dr.Murugesan and professors at NUS.

### Text Summarisation and Simplification

Feb 2022-Apr 2022

- Trained various machine learning models like Simple RNN, LSTM, Transformer, GRU in Python, to compare different research papers using quantitative metrics like precision and recall, followed by qualitative metrics like brevity.
- Successfully testing among 15 high school and university students to determine the summarising and simplifying accuracy of each model to compare with the state-of-the-art models.

### Post-discharge information management

Jan 2022-Dec 2022

- Built a web-application and creation tool, using React.js and Firebase database, that extracts data from the hospital 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 Autoencoders

Oct 2022-Nov 2022

- Researched about the mathematical foundation behind variational auto-encoders and neural networks followed by a coding component in Python to show their latent space visualisation, explaining the mathematical motivation of autoencoders.

### 2-Factor Authentication application under Orbital Project 2021

May 2021-Aug 2021

- Using SQL, CSS, HTML and JavaScript, our team built a Password Manager that stores and auto fills all passwords and 2FA code with a single click and securely syncs across all the devices.
- Successfully tested the password manager and chrome extension among students and fresh graduates at NUS.