

## JASMINE NG

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Data scientist with a strong foundation in Chemical Engineering. I approach complex challenges with a structured and data-driven approach, cultivated through my experience as both a Process and Project Engineer. An advocate of lifelong learning. My goal is to harness the potential of data science to extract crucial insights, empowering businesses to make data-informed decisions that spur strategic growth.

## SKILLS

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- Professional abilities: project management, change management, data analysis, data visualisation, statistical modeling
- Soft skills: stakeholder management, effective communication
- Technical skills: Python (Pandas, NumPy, Matplotlib, Scikit-Learn, NLTK, BeautifulSoup, RegEx, Tensorflow, Keras, BERTopic), Microsoft Excel (Pivot Table, Pivot Chart, XLOOKUP), SQL, Power BI & Tableau, SAP, Databricks, Scala, Git

## EXPERIENCE

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### Graduate (Data Science Immersive Course) – General Assembly, Singapore May 2023 – Aug 2023

- ***Riding the Data Trail: Text-Based Price Classifier for Road Bikes on Carousell*** – scraped listings from Carousell web, used BERTopic to identify top topics and keywords, deployed classifiers to predict pricing class of bike listings. Achieved model accuracy of 97%.
- ***Data-Backed Solutions for Combating West Nile Virus in Chicago*** – utilized logistic regression and various classifiers (random forest, XGBoost, AdaBoost) to predict the appearance of the West Nile Virus considering weather, location, testing, and spraying data. Achieved AUC ROC of 86%.
- ***Unveiling the Recipe for Comedy Success: Analysing Viewer Preferences and Sentiment Towards Popular Sitcoms*** – scraped 2 subreddits, utilized vectorizers with various models to: identify popular elements among the viewers, classify comments by shows, and analyse sentiments from the comments. Achieved model accuracy of 92%.
- ***Your House, Your Future: Making Informed Real Estate Decisions*** – deployed a linear regression model with Ridge and Lasso regularization to develop a product which allows the public to predict the resale price of their flat. Achieved RMSE of S\$47,150.

### Process Engineer – Corteva Agriscience Singapore Jun 2021 – Mar 2023

- Inflation Control Room (ICR) analyst as part of the Dynamic Margin Management (DMM) effort by the company to mitigate supply market cost pressures; worked closely with buyers across all portfolios to document, analyse price increases and formulate push backs by utilizing manufacturing and process chemistry knowledge. This resulted in USD 7.1 mil in Productivity and USD 7.2 mil in Cost Avoidance (as of Jun 2022).
- Responsible for monitoring and reporting of monthly manufacturing Production to Plan figures using Microsoft Power BI

### Process Engineer – Sanofi (Aventis Pharma Manufacturing) Singapore Nov 2018 – Jun 2021

- Yield optimization of production batches through data collection from various sources (PLC, manufacturing batch records) and through analysis using Excel, identified opportunities for improvements.

### Project Engineer – GlaxoSmithKline Singapore (Jurong) Jun 2016 – Jun 2018

- Executed plant modifications and qualification as part of a project team which was responsible for a £20 mil tech transfer of an API (4 chemical stages) into a new train of equipment within the production building on time, within budget and with zero safety incidents.

### ASEAN-Pacific Engineering Graduate Program & Sales Engineer – Siemens Singapore Aug 2012 – Jun 2016

- Rotated through roles in the proposals, project management and sales teams in the Water Solutions department.

## EDUCATION

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Data Science Immersive Course – General Assembly, Singapore May 2023 – Aug 2023

MSc Biochemical Engineering – University College London (UCL), United Kingdom Sep 2010 – Sep 2011

BEng Chemical Engineering – University College London (UCL), United Kingdom Sep 2007 – Jun 2010