# Lee Heng Wai, Alan

**Research | Data Analytics | Product Development | Business Intelligence**

A research analyst turned data professional with more than 3 years of experience writing Functional & OOP python, SQL, and task automation using REST API requests. I like developing products and I know a thing or two about the various financial asset classes.

## CONTACT

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LinkedIn || Github

## PERSONAL/FUN PROJECTS

- Automated news reader (py)
- Crypto News Aggregator
- News scraper with mySQL DB
- Automated Crypto Trading Bot (REST API & web sockets) (py)
- Google trends scraper (py)
- Central Bank Speech extract (py)
- Project management webapp (nodeJS)

## BUSINESS SKILLS

- Product Development
- Statistical Inference/Analyses
- Econometrics, Macro Forecasting
- Data Warehousing, Data Mining Data Analytics, Data Governance
- Geospatial Analytics
- ETL Pipeline (end-to-end)
- Workflow Automation
- AGILE, SCRUM methodology using Jira and Kanban boards
- Project Documentation

## TECHNICALS

- Python (Pandas, numpy)
- SQL, NoSQL RDBs (CRUD)
- NodeJS, JavaScript
- HTML, CSS
- ExpressJS, ReactJS
- Excel, Word, PowerPoint
- PowerBi
- AWS S3 Bucket
- Git VCS (pull, commit, push)
- Bash/Shell Script

## SPOKEN LANGUAGES

- English (Fluent/Bilingual)
- Mandarin (Fluent/Bilingual)
- Japanese (Basic)

## EDUCATION

**University of London International Programmes**
*Bachelor of Science, Major in Economics, Upper 2nd Honours*
*Aug 2012 – Aug 2015*

## PROFESSIONAL EXPERIENCE

**Crypto.com, Singapore**
*Research Analyst,* ***Blockchain, DeFi, GameFi*** *|| Jan 2022 – Jul 2022*

- Responsible for weekly newsletters and monthly articles on Layer 1&2 blockchain developments, GameFi news and Crypto Market activity. Topics include Blockchain Energy Consumption and Asset Custody.
- **Projects:** Developed and scheduled python and on-chain SQL scripts to streamline workflow within the research team to ensure quality data delivery such as Automated RSS news aggregator for crypto news via google dev API; re-factored code for chart generation. Developed end-to-end ETL data feed for GameFi newsletter; Twitterbot to track blockchain related.

**Wood Mackenzie, VERISK Analytics, Singapore**
*Data Analyst,* ***Upstream Oil & Gas*** *|| Jan 2019 – Feb 2022*

- Responsible for product data quality for East and Southeast Asia upstream O&G data. Contributed to internal stakeholders' collaboration to improve data governance on Oracle RDBs, data warehousing, and data analytics methods using Business Intelligence tools (PowerBI). Applied geospatial analytics and geo-referencing techniques to enrich data product offering to clients (ESRI ArcMap, ArcPro). Contributed and documented part of the company's digital transformation initiative towards cloud-based data ingestion and automation via AWS Datalake suite with a focus on ETL methods (Extract-Transform-Load).
- **Projects:** Designed and developed ETL methods. Spearheaded end-to-end product development utilizing SEC EDGAR XBRL company financial data. Developed in-house automation scripts and python GUI to improve workflow within other business units via projects such as scripts to track Chinese upstream news flow and an offshore rig tracking tool blending key data points into actionable data and script to speed up geo-shapes upload into ArcMap. Statistical analyses for upstream wells and East Asian geological basins.

**J.P Morgan Chase & Co**
*Research Analyst,* ***Emerging Markets Asia, Economics*** *|| Mar 2018 – Aug 2018*

- Responsible for commentaries on latest economic developments for EM Asia countries (Singapore, Malaysia, Indonesia), made available on JPMC's client portal; MAS licensed (CMFAS modules M5, 6A etc).
- Utilised macroeconomic data to complement the firm's economic views (CEIC data, BIS, World Bank, FRED and JPMC's proprietary database); Applied various econometric, time series and detrending techniques such as using the Hodrick-Prescott filter for internal stakeholders.
- **Projects:** Introduced new data visualization methods for economic data via python's matplotlib; Replicated research paper results studying the unemployment-inflation relationship in R; Initiated the use of supervised and unsupervised machine learning classifier techniques to screen trade ideas for the strategy team.

**Centre for Asset Management Research & Investment, NUS Business School**
*Research Analyst,* ***CAMRI*** *|| Sep 2015 – Feb 2018*

- Maintained and improved in-house quantitative model covering six Asian countries and US using academic literature; applied portfolio constraint optimisation methods via Barra Aegis and Bloomberg.
- Organised and evaluated macroeconomic data for NUS-Cornell Global Investors' Friendliness Index housed at CAMRI; Produced macroeconomic data visualizations for monthly market research pieces.