

# Han ZHOU

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## Education

**MSc. in Language Science (Neuroscience), University College London** (Distinction) Sept.2022-Dec.2023  
**B.A. in German, Shanghai Jiao Tong University** (Grade: 88/100) | **Minor: AI** Sept.2018-Jun.2022  
**Courses:** Natural Language Processing; Probability and Statistics; Calculus; AI Programming Framework; Introduction to Deep Learning for Speech and Language Processing; Neuroscience of Language; Development of Speech Perception and Production  
**Certificate:** SJTU Scholarships (Top 20%); Data Science Mindset (GCP Decoded); Moody's Credit Risk Coach Certificate (CMB); Data Science Methodology (Coursera); Data Science Orientation (IBM)

## Work Experience

**CMB Graduate Program, HSBC** Jul.2023- Present

**Rotation 2: Risk Data Analyst**, Wholesale Data, Analytics and CRM

- Led the project of growing high-growth customer safely using BigQuery, thus identified the sectors driving the greatest growth, and potential Third-party Payment Providers (TPPPs) and Fintech customers from the existing customer book by analysing customers' transaction data, helping frontline teams mitigate risks timely;
- Developed several dashboards for inhibits/account suffixes on Looker Studio, which set up controls for the business teams to monitor and review these processes, thus reducing customer complaints and help achieve consumer duty;
- Supported the migration of datasets and codes from SAS to Google Cloud Platform (GCP), thus updating the technical level and platforms within the bank.

**Rotation 1: Relationship Manager**, Business Banking

- Monitored and mitigated financial risks for SME clients by reviewing and analysing their annual accounts and MI, thus determining on their credit risks, CRRs and loan products to decide on waiving the quarterly MI;
- Aligned on the AD's portfolio management and migrated customers to BBD/BBPM by analysing their business accounts, credit risks and loan limits;
- Collaborated with North, South Yorkshire RM teams and sustainable finance team to host upskilling sessions among local teams, thus enhanced the RM's knowledge about sustainable products and Sustainability Tracker.

**NLP Product Operation Intern**, AI-LAB, ByteDance Technology Co., LTD Feb. 2022-Jun. 2022

- Led the TikTok Cross-Language Assessment project in German, and analysed data from over 1000 problematic captioned videos, thus determining users' pain points and factors affecting users' satisfaction with the live subtitle function on TikTok and delivering the outcome to R&D department;
- Analysed and visualized data from over 1500 corpus items from 5 dimensions, thus producing structured reports on the existing problems and providing feasible suggestions in communication with R&D to upgrade Feishu.

**TTS Linguistic DA Intern**, Ximalaya Technology Co., LTD (top AI voice company in mainland) Jun. 2021-Sept. 2021

- Led the high-prioritized sentiment annotation project, analysed sentimental polarities and 8 categories of emotions in dialogues, thus establishing the sentiment dataset with over 24,000 data to develop Text-To- Speech (TTS);
- Evaluated and fixed over 1000 bad cases of AI pronunciation in Mandarin based on prosody, phonetics and sentiment, regularised and cleaned the newly added Mandarin data with Python, enhancing the performance of speech synthesis.

## Projects

**Development & Deployment of the Digital Channel EC-Hub**, HSBC Early Careers Team

- Developed and launched a new digital internal site EC-Hub for the HSBC early careers team with HTML/CSS through collaborating with IT team and stakeholders, which incorporated and replaced the previous Grad-Hub and DA-Hub;
- Created an inclusive and more convenient one-stop shop for all the resources needed on the graduate/degree apprentice/internship programmes and reached a much better user experience with the new EC-Hub.

**Language- and Speaker- Independent Emotion Recognition System Using XGBoost**, UCL Final Dissertation/Project

- Created a dataset including five distinct languages which contained four common emotions (sad, happiness, neutral, angry), and extracted the acoustic features from it using OpenSMILE;
- Built and fine-tuned an emotion recognition model using XGBoost which is generalizable across various languages/different speakers, achieving a high accuracy of 75% on *Angry* emotion, surpassing a wide range of previous baseline approaches.

**Data Science & Analytics Virtual Intern Program**, BCG

- Applied CRISP-DM Model to diagnose the source of SME customers for PowerCo., and put forward the hypothesis that churn is driven by customers' price sensitivity, locating the goal of modelling;
- Performed exploratory data analysis based on over 15,000 data from clients, so that assisted the client PowerCo. in analysing how different factors like price sensitivity affected the churn rate of their customers;
- Built a Random Forest Classification model after feature engineering, which successfully predicted the customers subscribed at PowerCo. who are more likely to churn, reaching an accuracy of 90%.

## Skills

**Tech Skills:** GCP(BigQuery); SQL; Python(sklearn/pandas/numpy/machine learning); RStudio; Tableau; Looker Studio; HTML; CSS; Qiklsense

**Language Skills:** Chinese (Native); English (Fluent); German (Fluent); Sanskrit (basic)

**Soft Skills:** Interpersonal Communication; Adaption to multicultural atmosphere; Teamworking; Learning capacity; Multitasking