**Zhongyi Sun**

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**Professional Summary**

I am an experienced Data Analyst with a strong background in Python, SQL, and Excel, honed over three years in the Telecom industry. My expertise lies in interpreting complex datasets and developing insightful applications and data pipelines.

As a multilingual professional fluent in Mandarin, English, and Japanese, I excel in diverse team environments. My contributions at China Telecom Europe Limited led to significant marketing and data engineering successes, including a 50% increase in new users and a 30% revenue growth.

Skilled in BI tools like Tableau and experienced in ETL processes using Apache Airflow and Kafka, I also hold key industry certifications such as the Google Data Analytics Professional Certificate and AWS Certified Cloud Practitioner. I am actively seeking opportunities to leverage my data analysis skills to drive further organizational growth.

**Key Skills**

* Programming languages:
  + Python (proficient): NumPy, Pandas, Matplotlib, OpenCV
  + SQL (proficient): views, stored procedures, common table expression, primary/foreign keys
  + R (familiar): dplyr, tidyr, ggplot2
* Software: Microsoft Excel (proficient)
* Relational Databases: MySQL (intermediate), BigQuery (familiar), PostgreSQL (familiar), IBM db2 (familiar).
* BI Tools: Tableau (intermediate), Power BI (familiar)
* ETL, Data pipeline and processing: Apache airflow (intermediate), Kafka (intermediate), Shell scripting (intermediate), Spark (familiar), Hadoop (familiar)
* OS: Windows (proficient), Linux (familiar)
* NoSQL: Mongo DB (familiar)
* Mandarin (Native), English (Fluent), Japanese (JLPT N2, Fluent)

**Projects**

* Wheel of Fortune Python Game Development Python
  + Demonstrated a strong understanding of Python, object-oriented programming (OOP), and use of JSON files. The game involved the creation of classes for a human player and a computer player, demonstrating the use of class inheritance and understanding of different subclasses.
* Image Processing and Keyword Search in Newspaper Archives Python
  + Developed a comprehensive Python program to process a ZIP file of newspaper images and enable keyword-based searches. The project involved the use of multiple libraries including Pillow, OpenCV, and Pytesseract, and it required significant self-learning and problem-solving abilities.
* Bike-Share User Analysis and Marketing Strategy Development SQL, Excel, BigQuery
  + Acted as a data analyst in a marketing team for a bike-share company based in Chicago. The goal was to devise a data-driven marketing strategy to convert casual riders into annual members, in order to maximise the company's profitability and future growth.
* Road Traffic Data Pipeline Development for National Highways Airflow, Python, Shell
  + Consolidate road traffic data sets from various toll operators to facilitate an overarching analysis aimed at decongesting national highways. The goal is to handle data in varying formats, utilize Apache Airflow to create robust data workflows, and prepare complex data sets for insightful analysis.
* IoT Telematics Data Streaming Pipeline for Motorbike Traffic Data Kafka, MySQL
  + Constructed and managed a real-time data streaming pipeline for collecting and analysing motorbike traffic data from IoT telematics devices. The aim is to monitor motorbike statuses continuously and promptly detect potential collisions or anti-theft indicators. The data gathered through this pipeline had a direct influence on the calculation of driver insurance premiums, bringing in a tangible business impact.

**Work Experience and Achievement**

**Jan 2020 – Nov 2022 China Telecom Europe Limited, London** Operation and Quality Control Analyst

* Participated in the data analysis for the marketing strategy during the summer student mobile SIM campaign. Successfully increased new users by 50% (15k) and revenue by 30% (£150k) during the three-month campaign compared with previous years.
* Conducted market research on industry competitors, target market and pricing as part of an internal growth strategy.
* Analysed previous promotion data and visualised the results. Prepared market analytical report and presentations for internal and external client meetings.
* Designed and implemented the solution for an Italian motorbike company by providing telematic devices and connection services in Europe, doubling their sales in Italy in H1 2022 and having total of 10k connected motorbikes by October 2022.
* Conducted market research on the motorbike industry in Italy and other EU countries. Analysed sales data of connected motorbikes in China and Italy, and smart vehicle sales across the EU. Produced the predictive analysis report. Designed the connection solution based on the analysis, which was approved by the client.
* Participated in the data engineering team to design the ETL process and database to load the data from IoT telematic devices to the Azure MySQL database using Apache Kafka. Helped with the maintenance and troubleshooting of the data warehouse.
* Managed the delivery of the project and coordinated various parties including the client, device, platform, and SIM providers. Also managed the change of device hardware and software process to optimise performance.
* Organised and reported weekly update meetings with client to keep the project on track. Arranged feedback reviews every month to improve the delivery process and solution.
* Co-led a project with an Italian telematics company to provide IoT services in Mainland China. The project has successfully passed the testing phase and started production phase.
* Proposed and managed the integration of cloud-based remote access solution for the SIMs and devices. Participated in the design of the AWS cloud architecture between Frankfurt, Germany and Ningxia, China, contributing to the creation of a robust, scalable infrastructure.
* Acted as a key team member in a project with a Chinese EV charging company based in Germany, assisting in the design and implementation of an AWS cloud-based solution.
* Facilitated remote access and maintenance of EV charging piles across Europe, significantly improving the company's operational efficiency.
* Expanded my practical knowledge of cloud-based solutions and highlighted the value of cross-functional collaboration in delivering effective solutions.

**Certifications**

* Google Data Analytics Professional Certificate.
* IBM Data Warehouse Engineer Professional Certificate.
* HackerRank SQL (Advanced) Certificate.
* AWS Certified Cloud Practitioner.
* Studying towards AWS Certified Developer - Associate

**Education and Academic Awards**

**Sep 2017 – Sep 2019** **University College London   
MSc** Wireless and Optical Communications

**Sep 2015 – Sep 2017 University of Bedfordshire, Milton Keynes**

**BEng** Electronic Engineering**First-Class Honours**

**Other Activities**

Volunteer Technician for the Jewish Deaf Association in London; responsible for the maintenance of people’s hearing-aids and talking to the residents at Baxendale Care Home every 6 weeks for 1 year.