## **Cassandra** (HsiangNing) Chen

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#### Education

The University of Chicago, Division of the Physical Sciences

Master of Science in Applied Data Science

National Sun Yat-sen University, College of Social Sciences

Bachelor of Arts in Political Economy

### Skills

Programming/BI/Database: Python (Pandas/NumPy), R Studio, Power BI (DAX/Power Query), Tableau, Google Analytics, Facebook Ads Manager, MySOL (Query, Schema, Relational Databases, Reverse/Forward Engineering), Neo4J, MongoDB

Statistical Tools: Stata, SPSS, Excel (Pivot/Lookups, Power Query), Share Point, SurveyMonkey, Google Forms

# **Professional Experience**

#### Atlas English Language Institute of Testing and Education

Data Analytics Consultant for TOEFL

- Led the designed and automation of student performance analytics reports using Excel and PowerPoint
- Delivered training sessions on the analytical report and documentation for 5 assistants/instructors
- Improved onboarding efficiency by creating user manuals, technical documentation, and standardizing the process for report generation and data workflows

#### **IDP Education**

Junior Business Analyst

Taipei, Taiwan

Remote in Taiwan

Apr 2024 – Aug 2024

- June 2022 Dec 2023
- Built a pipeline using 300k data point from 5 key higher education destination countries to design a historical market trend dashboard on PowerBI for business expansion
- Improved data accuracy by 16% and reduced query time by 30% in Boarding School summary stats by optimizing • ETL processes in collaboration with the IT team
- Implemented row-level security in PowerBI to ensure efficient access control and data confidentiality •
- Created annual insight reports in PowerPoint to analyze lead response times and conversion rates in post-events performance across marketing channels, which enabled the team to identify efficient channels.
- Projected potential annual revenue growth of 1.1% by analyzing key destinations' student market trends, YOY growth rates, and regulation friendliness using Python
- Reduced Facebook cost per registration by 48% and Google by 24% by analyzing key marketing metrics using • PowerBI, enhancing retargeting efforts and optimizing campaign timing
- Developed a database to store 1M+ market trends data and enhance data accessibility for non-tech team
- Identified 0.6% of annual revenue in commissionable earnings previously unrecorded by cross-referencing survey data and internal finance records using Excel

# **Data Science & Statistical Projects**

### Chicago 311 Service Request Database Project

- Built a data pipeline by importing 1M+ datasets into MySQL, normalizing them into 8 query-ready tables within a relational database using a star schema
- Established a live connection with Tableau to deliver interactive visualizations for actionable insights

#### **Class Reproduction in Taiwan's Silicon Valley**

- Processed 300+ survey responses and 4 interview datasets by transforming raw data into structured formats for analysis in Stata
- Engineered interaction terms and categorical variables to enhance a logistic regression model, revealing insights on the impact of parental industry on children's educational attainment

Chicago, IL Expected Dec 2025

Kaohsiung, Taiwan Jan 2022

Feb 2020 – Dec 2020

Sept 2024 – Dec 2024