# **Tingting Huang**

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## **EDUCATION**

University of Pennsylvania, Philadelphia, USA

Aug. 2019 - May. 2021

- Master of City Planning (Focus: Sustainable Transportation and Infrastructure Planning); GPA: 3.78/4.0
- Core Courses: Transportation Planning Methods, Geospatial Software Design, Machine Learning, Big Data Analytics, Geospatial Data Science, Geospatial Cloud Computing & Visualization, Planning by Numbers

Sun Yat-sen University (SYSU), Guangzhou, China

Aug. 2015 - Jun. 2019

- Bachelor of Science in *Human Geography and Urban-Rural Planning*; GPA: 3.94/4.0 (Top 10%)
- Minor: Finance
- Selected Scholarships & Awards: National Scholarship (Top 1%), First-class Scholarship of SYSU (Top 2%)
- Core Courses: Linear Algebra, Probability and Statistics, Advanced Mathematics, Remote Sensing and Geography Information System, Urban Development Strategy, Mathematical Geography, Transportation Geography

#### PROJECT EXPERIENCE

SF Express, SF Technology, Shenzhen, China

Aug. 2021 - Current

**Product Manager** 

Project Name: B2B Sales Intelligence SaaS Product "Fengtuo"

- Devised a sales leads recommendation system, enhancing lead quality through vector representations and geospatial analysis. This system boosted sales conversion rates to 5%.
- Spearheaded collaboration with engineering scrape data from 100+ sources and build a comprehensive business profile database on Hive, streamlining client outreach with 190+ million company details and a 100+ million B2B contact database.
- Led market analysis on market-intelligent SaaS products, resulting in targeted product development and refined competitor positioning, helped boost the revenue by 46 % and bring 50+ paid user increase.
- Conducted 62 user interviews, directly influencing product design by identifying key market trends and customer requirements. Implemented A/B testing and user feedback analysis, leading to a 500+ increase in paid users within 18 months of product launch.

Project Name: Application of Named Entity Recognition for Logistics Waybill Address Extraction

- Developed a Bi-LSTM model and a CRF model to perform named entity recognition to a 65+ million waybill address dataset extracting the key parts of address to improve the accuracy of user-input address by 9.6% to save 12% average delivery time.
- Conducted hyperparameter optimization by PSO algorithm to acquire the theoretical optimal model for address NER, the accuracy of user-input address was improved by 9.6%.
- Designed the novel NLP framework to autocorrect user address within 0.1 second and implemented closely with the data science team within months.
- Performed word embedding to a waybill address dataset by word2vec model.

Project Name: In-house Logistics Operation Management System

- Devised a module for logistics competence, timeliness and revenue analysis for a logistics network with 300+ lines, helped identify bottlenecks, delays and inefficiencies, enabling the improvement of 40+ poor-performance lines.
- Developed an interactive map that features a daily updated shipment heat map and a distribution map of delivery resources. This tool enables real-time monitoring of shipments and resources, facilitating the identification of peak periods, patterns, and volume forecasting for more than 3.54 million areas of interest (AOI), and optimizing the deployment of over 100,000 delivery personnel and vehicles.
- Designed and implemented a feature using ChatGPT API to perform NL2SQL to democratize data analytics, designed and refined prompts. The feature successfully empowered over 300 non-technical users to generate reports, gain valuable insights, and make data-driven decisions, led to a 20% reduction in workload for the data science team.
- Developed a module that seamlessly integrates a GIS and CRM system, enabling efficient prospect finding and streamlined management of business-side clients. This module reduced the time required for lead generation by 8.18%.

University of Pennsylvania, School of Design, Philadelphia, USA

Jun. 2020 - Feb. 2021

Research Assistant. Advisor: Prof. Megan Ryerson

Project Name: The Role of CARES Act Funding in the Recovery of the Aviation Industry Amidst the Pandemic Crisis

• Wrote a Python script to scrape 380+ US airports' operating revenue and expense, enplanement data from web pages

within a week.

- Conducted data analysis and mapping through Python and ArcGIS to analyze and compare air traffic data in 2019 and 2020 to determine the impact of COVID-19 on airline industry, helped identify the unreasonable aspects of CARES Act Funding allocation and provide policy recommendations.
- Conducted literature reviews related to airport operation, the impact of COVID-19 on aviation industry.

#### University of Pennsylvania, School of Design, Philadelphia, USA

Oct. 2020 - Dec. 2020

Main Participant. Instructor: Prof. Andy Eschbacher

Project Name: "Philadelphia Livability Assessment Map Tool" Web Application Development

- Designed and implemented an interactive web map using Mapbox. The web application was deployed on AWS, providing comprehensive amenity, transportation, and crime analysis for any location within Philadelphia.
- Created wireframes, prototypes, and visual designs and contributing to the web application architecture design process. The web application was served as a model project for a later semester.
- Collected OpenStreetMap POI data, Census data using Google BigQuery and conducted data cleaning and wrangling via Python; Maintained a PostgreSQL database on AWS RDS.
- Built APIs using Python Flask and create dynamic web pages using a custom frontend and backend.

## Chinese Academy of Sciences, IGSNRR, Beijing, China

Jun. 2017 - Dec. 2017

Research Assistant. Advisor: Prof. Haitao Ma

<u>Project Name: The Evolution and Mechanisms of Scientific Cooperation Network and Polycentricity of Guangdong-Hong Kong-Macau Greater Bay Area</u>

- Collected data of the number of cooperation research for 56+ thousand city-pair within and beyond the greater bay area from Web of Science.
- Developed a model using the Gini coefficient to evaluate the multi-centric degree of knowledge production; worked out the multi-centric degree of each city in the knowledge cooperation network to build a basis for subsequent explanation.
- Made the scientific cooperation network map of city groups in the bay area via R studio.
- Analyzed the multi-centric degree of each city in the bay area under different dimensions and the roles (incubators or hubs) that cities in the bay area played in scientific cooperation; completed the research report.

#### PROFESSIONAL EXPERIENCE

Ernst & Young, Shanghai, China

May. 2021 - Aug. 2021

#### Consultant Intern

- Conducted extensive research on the IFRS17 standard and contributing to the design of the contracts management system for China Taiping Insurance company.
- Wrote the business requirement document for the data platform, focusing on the data input and output of the accounting information system, including IFRS17 expense classification, field names, types, rules.
- Analyzed and evaluated the business operations of prominent foreign banks and securities firms to gain insights into their operations and prepared analytical.

#### University of Pennsylvania, Wharton School, Philadelphia, USA

Jun. 2020 - Aug. 2020

Teaching Assistant. Advisor: Prof. Sid Deliwala

- Conducted Arduino tutorial and led lab sessions.
- Prepared instructional materials.
- Guided undergraduates to design and develop products.

# **SKILL**

Data Analysis: R, SQL, Python, SPSS

Geospatial: ArcGIS, GEE, ArcPy, PostGIS, Mapbox

Design: Adobe Creative Cloud (Photoshop, Illustrator, InDesign), Auto CAD, SketchUp, Axure, Figma

Development: JavaScript, HTML, CSS, C++, AWS

Language: English, Chinese