Huidi (Sofia) HU

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Education

University of Pennsylvania, Philadelphia, US   2021
Master in City Planning, Concentration of Smart Cities, Weitzman School of Design, Average Grade: A-
Courses: Land Use and Environmental Modeling, Geospatial Software Design, Advanced Topics in GIS, Remote Sensing, Water Policy, Java Script Programming for Planners and Designers, Geospatial Data Science, Quantitative Planning Analysis Methods, Planning Studio, Smart Cities Practicum, Negotiation and Conflict Resolution
GIS and Spatial Analysis Certificate, Weitzman School of Design

Peking University, Beijing, China   2019
Bachelor in Urban Planning, Yuanpei College, GPA: 3.72/4.0
Bachelor in Economics, National School of Development, GPA: 3.64/4.0

Exchange, National University of Singapore   2018

Projects

Fire Response Situational Awareness API   2021
➢ Please visit https://pennmusa.github.io/MUSA_801.io/project_19 for more details
Is Covid Changing the Spatial Pattern of Car Crashes in Major US Cities?   2020
➢ Please visit https://sofia-hu.github.io/CPLN672/ for more details
Detecting the Structure of Urban Agglomeration with Satellite Imagery   2019
➢ Processed night-time satellite images to define indicators for urban boundary & economic vitality
➢ Used the above indices to examine the rank-scale rule in Jing-Jin-Ji urban agglomeration
Post-Games Utilization of Beijing Olympic Main Venues   2017
➢ Analyzed the impact of the construction of the Beijing Olympic Main Venues on urban transportation based on space syntax

Professional Experience

Senior Data Scientist, Beijing DiDi Infinity Technology and Development Co., Ltd, Beijing, China
05/2023-Present
➢ Perform data preparation activities, such as collecting, cleaning, and organizing
➢ Participate in developing and testing full funnel metrics to measure paid media performance
➢ Establish data modeling frameworks for addressing the growth opportunity and lifting the experience of the customers across the ecosystem
➢ Produce clear, understandable visualizations, dashboard and reports to share with senior management and business partners around the world, provide the insightful story from the data perspective to business owners
➢ Create and maintain technical documents and tutorials, undertake trainings for DS team, stakeholders and interns
Data Analyst, CityDNA Technology Co., Ltd, Beijing, China   07/2021-05/2023
➢ Developed a patented deep learning & machine learning algorithm to detect and classify traditional Chinese residential courtyards, cooperated with the engineer team to integrate this algorithm into a planning institute's interactive working platform
➢ Designed a comprehensive framework to quantitatively evaluate the street walkability of Tianjin, utilized big data & investigation to produce ranking, researched slow traffic's influence on local economy and proposed improvement projects to the World Bank
➢ Collected and wrangled data from satellite images & open source maps to rank major TOD cities in China, worked with the new media operation team to publish results
➢ Led a team of 3-5 members to compose diagnose reports for 10+ cities, each report was supported by big data,

field research, questionnaire investigation, as well as providing policy recommendations which can be implemented by the municipal

➢ Analyzed over 100,000 questionnaires to summarize the major concerns of urban population in China, designed an automated script to generate standardized reports & maps for each city

➢ Cooperated with the engineer team to develop and maintain E-government platforms, designed non-relational database for spatial information storage

Teaching Assistant, University of Pennsylvania, Philadelphia, US   01-04/2021

➢ Worked with the lead teacher to build plans for the class of *Java Script Programming for Planners and Designers*

➢ Held regular office hours and worked with small groups of students to enhance the learning process

Intern Urban Planner, Futurepolis L.L.C., Philadelphia, US   05-08/2020

➢ Conducted transportation and public service accessibility analysis for Zaozhuang railway urban design project

➢ Summarized best practices on planning topics including Neighborhood Center, Eco-city and Eco-quartier

Intern Urban Planner, China Center for Urban Development, Beijing, China   10/2018-01/2019

➢ Engaged with community members and industrial stakeholders in Fuping County, Shanxi Province

➢ Conducted data analysis and visualization on demographic feature and performed population prediction

➢ Analyzed local industrial structure and proposed strategies for future economic development

Research Assistant, Beijing Institute of Big Data Research, Beijing, China   06-08/2018

➢ Created nontraditional economic indicators for major Chinese cities by processing and analyzing satellite images

➢ Further developed the above method in undergraduate thesis to explore major urban agglomerations in China

Intern Transportation Planner, World Resources Institute, Beijing, China   08-12/2017

➢ Conducted policy research and data analysis on urban transit operations and new energy buses

➢ Cooperated with professional staff to compile materials, collect data and translate documents

Research Assistant, Peking University, Beijing, China   06-08/2017

➢ Investigated regional situations and policies based on field surveys in major cities of Shandong province

➢ Conducted policy research on regional planning mechanism by comparing domestic and overseas experience

➢ Benchmarked economic, social and environmental indicators across 6 similar regions for develop strategies

Other Experience

Graduate Student Center Fellow, University of Pennsylvania, Philadelphia, US   09/2020-01/2021

➢ Planned programs and events for the graduate and professional student community

➢ Prepared promotional materials and publicized programs on social media

Student Journalist, Peking University, Beijing, China   09/2015-10/2017

➢ Proposed, wrote and compiled feature stories of major campus events for the university magazine

Skills

Data Science: Casual Inference, Predictive Analytics, Supervised Learning, Unsupervised Learning, Deep Learning, NLP, Geoanalytics, Time Series Analysis, Data Mining & Wrangling, Data ETL, Database Design, Data Visualization

Programming: Python, SQL, JavaScript/HTML/CSS, Git, Linux, Hive/Spark/Hadoop

Statistical Analytics: R, SPSS, Stata

Geo-spatial Analytics: ArcGIS, ArcPy, QGIS, Google Earth Engine, Environmental Modeling, TransCAD, Agent Based Modeling

Graphic Design: InDesign, Illustrator, Photoshop

Languages

Mandarin (Native), English (Fluent), French (DELF B2), Japanese (Conversational)