Suqi HUANG

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Portfolio:https://s7huang.github.io

Education

Sep.2021 - Now **Master of Urban Analytics, The Univerty of Hong Kong** Hong Kong SAR, China
Relevant courses: Foundations in Data Analysis, GIS, Big Data Analysis, Programming and AI, Spatial Mobilities Analytics

Sep.2013 - Jun.2018 **Bachelor of Architecture, China University of Mining and Technology** Xuzhou, Jiangsu, China

Skills

Data Analysis & Statistic: Python || Machine Learining & Deep Learning || SQL || Excel
Visualization: Data Visualization in Python || Tableau || Adobe Photoshop, Illustrator, InDesign
Geo-Spatial Analysis & 3D Modeling & Others: ArcGIS || Google Earth Engine || AutoCAD || SketchUp || MS office

Data Analysis Project Experience in HKU

Jan.2022 - May 2022 **Tai Po: From a Flood-prone Town to a Water-resilient City (Capstone)** As GeoLab Presentation

- Applied quantitative analysis and reclassification methods (ArcGIS) to assess stormwater management capacity.
- Conducted 100+ questionnaires to survey people's opinions on the flooding issue in Tai Po, processing and visualizing the data with Tableau.
- Developed a guideline and design toolkit that proposed strategies and designs to enhance stormwater management ability for different urban typologies and evaluate the target indexes with achieving the permeable surface target of 50% (previous 19.5%) along the river edge in Tai Po through the proposed scheme as a demonstration.
- Trained a computer vision model U-net (Python, TensorFlow) to identify the typologies defined by the project from satellite images, enhancing the reproducibility of the design toolkit.
- **Technology and Tool: ArcGIS || Tableau || Python || Deep Learning (TensorFlow)**

Apr.2022 - May 2022 **Analyzing Driving Factors of Land Value Based on Big Data in New York**

- Conducted data cleaning (unified geographic unit, removed irrelevant values, filled missing values, etc.) in Python based on the data collected through the NYC Open Data and integrated data with 32326 rows x 505 columns.
- Built machine learning model through Python (scikit-learn) for evaluation and comparison, including MLR, MPR, KNN, GBDT, and Random Forest, which has the best performance with 0.887 in R2.
- Reduced the MSE of models with an error maximum decreased by 23.28% by selecting 60 important features through RFE and archived 0.910 in R2 of Random Forest after parameter optimization and RFE.
- **Technology and Tool: Python || Machine Learining (scikit-learn) || Excel**

Apr.2022 - May 2022 **Evaluating the Environmental Impacts of Urban Sprawl in Xiamen, China**

- Analyzed (ArcGIS) the proportion of construction land, Urban Expansion Intensity, and Land-use Change Matrix based on land-use data in 2010 and 2020.
- Evaluated environmental impacts of urban sprawl by utilizing Principal Component Analysis and RSEI model (Python) to assess the ecological quality from greenness, wetness, heat, and dryness aspect based on Landsat8 image data from 2013 to 2021.
- **Technology and Tool: ArcGIS || Python**

Dec.2021 **London Air Quality Report**

- Created the visualization (Matplotlib, Seaborn, Plotly) by analyzing the air quality and human mobility change during the first lock period in London after conducting data prepossessing (transferred date format, remove outliers, etc.).
- Conducted the correlation and geographical weighted regression analysis to explore the relationship between air quality and human mobility change using Python.
- **Technology and Tool: Python || Excel**

Work Experience

May 2020 - July.2021 **Architect, SEED Architectural Design Co., Ltd.** Shenzhen, Guangdong, China

- **Cooperated on Feasibility Study of Urban Renewal**— Involved in urban renewal projects in Shenzhen, responsible for assessing the market position, estimating value, planning design, and writing corresponding study reports.
- **Assistance with Energy Efficiency Design**— Responsible for the facade design of the exhibition center and cooperated with the curtain wall consultant to optimize the energy efficiency design of the facade.

Jul.2018 - Mar.2020 **Assistant Architect, Tianhua Architectural Design Co., Ltd.** Shenzhen, Guangdong, China

- **External Communication and Presentation**— Collaborated with the consultant on the renovation project around Shenzhen Airport, reported projects while answering questions to government departments and other institutions.
- **Demand Analysis and Design —** Identified the appropriate commercial format and was responsible for the community commercial center through the conception, design, and construction development phases.