

# Suqi HUANG

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Portfolio: <https://s7huang.github.io>

Skilled in using data science, geospatial technologies, and development methodologies to facilitate climate change mitigation, public policy making and business development. More than 2 years of experience in assessing the value of urban renewal projects, while building business insight through real estate project cooperation. I have excellent learning, analytical and communication skills, and can work in a high-intensity environment.

Currently looking for a challenging career opportunity in the field of data analytics.

## EDUCATION

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- 09/2021 - Now      **Master of Urban Analytics, The University of Hong Kong**      Hong Kong SAR  
- Relevant Courses: Foundations in Data Analysis, Globalization and Regional Development, GIS, Spatial Mobilities Analytics, Science of Cities, Big Data Analysis, Programming and AI for Future Cities
- 09/2013 - 06/2018      **Bachelor of Architecture, China University of Mining and Technology**      Xuzhou, Jiangsu, China

## SKILL

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**Programming:** Python || Machine Learning (scikit-learn) || Deep Learning (TensorFlow, Pytorch) || SQL

**Software:** Tableau || ArcGIS Pro || AutoCAD || Microsoft Office || Adobe Photoshop, Illustrator, InDesign

**Language:** English (Proficient) || Mandarin (Native)

## DATA ANALYTICS PROJECT (More Details at <https://s7huang.github.io>)

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- 01/2022 - 05/2022      **Integrating Solution of Transforming Tai Po into Water Resilience Town**  
- Applied quantitative analysis and reclassification (*ArcGIS*) to assess stormwater management capacity and visualized (*Tableau*) the result of 100+ questionnaires which surveyed people's perception of flooding issues.  
- Developed a design toolbox to integrate improvement approaches for surface runoff control. And achieved the evaluation target by increasing the permeable surface rate to 50% (previous 19.5%) along the river edge in Tai Po as a demonstration to the design company and government department.  
- Created the dataset and trained a computer vision model U-net (*Python, TensorFlow*) to identify 12 city typologies from satellite images, enhancing the reproducibility of toolbox.
- 04/2022 - 05/2022      **Analysing Driving Factors of Land Value Based on Big Data in New York**  
- Conducted data wrangling (unified geographic units, removed irrelevant values, filled missing values, etc.) through *Python* based on data from various sources and integrated dataset with 32326 rows x 505 columns.  
- Built machine learning model through *Python (scikit-learn, Pytorch)* for evaluation, including MLR, KNN, Multilayer Perceptron, GBDT and Random Forest, which has the best performance with 0.887 in  $R^2$ .  
- Reduced the MSE of models with an error maximum decreased by 23.28% through selecting 60 important features and archived 0.910 in  $R^2$  of Random Forest after parameter optimization and RFE.
- 10/2021 - 12/2021      **Assessing the Future Development Value of Kwun Tong as CBD2**  
- Compared the destination attractiveness to workers of the 18 districts through utility model based on the job opportunity and travel time cost (*Neo4j, Google Maps Distance Matrix API*). Revealed the position of Kwun Tong with ranking 4<sup>th</sup> in attractiveness and proposed strategies to further enhance the connection to CBD.  
- Analysed the cause of Kwun Tong's outflow tendency through spatial analysis (*sDNA*) and GFA comparison (*Tableau*), as well as detected the areas that should be improved to provide solutions for government planning.

## WORK EXPERIENCE

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- 05/2020 - 07/2021      **Architect, SEED Architectural Design**      Shenzhen, Guangdong, China  
- **Urban Renewal Project Value Assessment** — Involved in the urban renewal project in Shenzhen, responsible for analysing the market position, estimating value, and writing corresponding study reports.  
- **Energy Efficient Design Optimization** — Responsible for the facade design of the exhibition centre and cooperated with the curtain wall engineer to optimize the energy efficiency design.
- 07/2018 - 03/2020      **Assistant Architect, Tianhua Architectural Design**      Shenzhen, Guangdong, China  
- **External Communication and Presentation** — Collaborated with the engineer and consultant on the renovation project around Shenzhen Airport, reported projects, and provided related solutions to government departments and other stakeholders.

## PRESENTATION

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- 06/2022      **"Explorations in the Applications of Urban Analytics", CUSUP X Geospatial Lab**      Hong Kong SAR  
- Demonstrating the innovative solution of transforming Tai Po into water resilience town