Ong Guo Xiang

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Portfolio: https://gxite.github.io **Github:** https://github.com/gxite

I am a self-motivated individual with work experience in Architecture, GIS, Urban Research, Spatial Analysis and building web applications. My experience allows me to serve as a bridge between multiple disciplines. I am currently seeking to gain more exposure to software engineering work.

WORK EXPERIENCE

Research Assistant

National University of Singapore   Jul 2019 – Dec 2020 *(1yr 6mo)*

I worked on the coding, GIS, spatial analysis and the publication aspects of the research, as well as the occasional design tasks on the sides.

Project: Measuring Physical Profile and Use of Park Connector Network with Deep Learning and Multi-Source Multi-Modal Data Analytics
PI: Dr Zhang Ye, Assistant Professor

- Worked with object and activity detection models using Python within Ubuntu to extract data from video footage. I wrote the glue code to integrate open source ML models and the code to process the detections into geotagged datasets.
  Link: github.com/gxite/pcn-acam
- Conducts spatial analysis on research data. I picked up the basics of spatial econometrics and applied it on the research data.
- Contributed as the main author for a conference paper in IFOU 2020.
  I am currently working towards a journal submission.
  Link:gxite.github.io/portfolio/observations_of_urban_activities_with_computer_vision.pdf
- Developed a web based application to visualized spatial data. (WIP)
  Link: https://pcn-web.web.app/
  Repo Link: github.com/gxite/pcn-mapvis
- Designed an exhibition entry in the Singapore Pavilion for the Venice Biennale 2020.
  Link: gxite.github.io/portfolio/venice_table.pdf

Architectural Associate

DCA Architects Pte Ltd   Jun 2017 – Jun 2019 *(2yrs 1mo)*

I have generated design renders, designed facilities for condominiums, managed construction contracts from start to TOP and worked on computational design projects.

- Worked as a Design Architect in collaboration with local consultant teams in Ho Chi Minh City, where I am responsible for generating design renders and visuals for all client presentations.
- Worked as a Project Architect for 2 Addition and Alteration works. During which, I managed regulatory clearance, reviewed shop-drawings, provided design directions and visuals for presentations.
  Projects:
  - CAG Terminal 3 Basement 2 A&A (Garden, amphitheatre, retail Shops, green wall)
  - CAG Taxi Holding Deck for Terminal 1 & Terminal 3 A&A
- Designed a simple parametric wall and column cladding within Rhinoceros 3D + Grasshopper.
  Link: gxite.github.io/perforated_panels.html
- Produced a proof of concept that allows users to use spreadsheet based unit type distribution table to interact with Revit models via Dynamo.
  Link: gxite.github.io/excel_to_revit.html

EDUCATION

National University of Singapore

Master of Architecture	(2016-2017)
Bachelor of Arts (Hons. Distinction), Architecture	(2012-2016)

SKILLS

Framework/Languages
Current Stack
Angular (Typescript, CSS/SCSS, HTML)
Mapbox JS, Deck.gl
Firebase Real-time database
Python

GIS & Spatial Analysis
ArcGIS
GeoDa
SPSS

CAD & Modelling
Rhinoceros 3D
Grasshopper
AutoCAD
Sketchup
Revit
Dynamo

Graphics & Rendering
Photoshop
Illustrator
InDesign
Lumion
Vray

LANGUAGES

English	(Native)
Mandarin	(Native)