

# YI, Yueyang

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## Research interests

Computational demography, spatial statistics, public health.

## Education

### Katholieke Universiteit Leuven

Leuven, Belgium

MSc Statistics and Data Science

Oct. 2018 – July 2023

Thesis: *Refining Population Mapping with Nighttime Lights: A Bayesian Spatio-Temporal Approach with SPDE-INLA.* ([R Code](#))

### University College London

London, UK

MSc Earthquake Eng. with Disaster Management

Sep. 2017 – Jan. 2019

Thesis: *A Novel Nighttime-Lights-Based Framework for the Large-Scale Monetary Flood Risk Assessment and Mapping.*

### University of Sheffield

Sheffield, UK

BEng (Hons) Civil Engineering

Sep. 2014 – June 2017

Thesis: *Smoothed-Particle Hydrodynamics Modelling of Free Surface Flows.*

## Publications

*Real-Time Use of Artificial Intelligence in Characterisation of Diminutive Polyps during Colonoscopy: Meta-Analysis*, with Yanyan Guo and Thomas Lam.

Accepted as **poster presentation** during [Digestive Disease Week 2024](#).

*Long-Term Effect of Colorectal Cancer Screening by Colonoscopy versus Fecal Immunochemical Test in Chinese Population: A Cohort Study with 14-Year Follow-up*, with Thomas Lam, Rashid Lui, Joseph Sung.

Accepted as **oral presentation** during [Digestive Disease Week 2024](#).

*Level of Acceptance and Trust of Artificial Intelligence among Gastroenterology Nurses*, with Thomas Lam, Wilson Goh, Max Cheung, Joseph Sung.

Accepted as **poster presentation** during [Digestive Disease Week 2024](#).

## Work in progress

*Clinical Effectiveness of Artificial Intelligence in Real-Time Diagnosis of Neoplastic Polyps during Colonoscopy*, with Thomas Lam.

*High-Resolution Population Estimation Exploiting National Census and Household Survey: A Bayesian Spatial Model with SPDE-INLA*, with Thomas Neyens.

## Research experience

### Stanley Ho Big Data Decision Analytics Research Centre

Chinese University of Hong Kong

Hong Kong SAR

Research assistant, with Prof Thomas YT Lam Aug. 2023 – Present  
Projects: risk score developments for multi-cancer screening; electronic medical record analyses; long-term retrospective studies on cancer screening strategies; artificial intelligence for Gastroenterology.

### **Water Equity Lab**

University of California, Irvine Irvine, USA  
Visiting student, with Prof Maura Allaire July 2019 – Aug. 2019  
Projects: comparative studies on economic and engineering understandings on monetary flood risk; flood insurance popularisation.

## **Industry experience**

**United Nations ESCAP, IDD/IDS** Bangkok, Thailand  
Intern June 2022 – Nov. 2022  
Projects: Asia-Pacific information superhighway; look-up tool for ICT-related databases and publications; website developments; digital climate data and digital connectivity data analyses.

**SCOR, R&D** London, UK  
Intern June 2018 – Aug. 2018  
Projects: disaster catalogue collection; disaster-induced loss mapping platform.

## **Skills**

### **Programming**

Proficient in: R (ANOVA, linear regression, generalised linear regression, time series models, survival analysis, robust statistics, Bayesian statistics, mixed effects models, nonparametric statistics, spatial and spatiotemporal models, meta analysis), SAS (sampling, multivariate statistics).

Familiar with: MATLAB (basic maths), Python (stochastic models, web scraping, textual mining, interactive visualisation, machine learning).

### **Software**

Statistics: BUGS, JAGS, INLA (Bayesian statistics), JMP (experimental design).

Geographic information systems: QGIS, ArcGIS.

Cloud: Alibaba Elastic Compute Service (ECS).

Productivity: Microsoft Office, R Markdown,  $\LaTeX$ .

### **Languages**

Mandarin (native), English (fluent), French (CEFR A2).