Luna Yue Huang

CONTACT

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INTERESTS

Economics: Causal Inference; Experimentation; Spatial Econometrics;
Machine Learning: Computer Vision; Object Detection and Segmentation;
Geospatial Analysis: Remote Sensing; Geospatial Machine Learning.

EDUCATION

University of California, Berkeley
Ph.D. in Development Economics (Expected Graduation: 2021)
Advisors: Edward Miguel, Marco Gonzalez-Navarro, Solomon Hsiang; GPA: 3.8

EXPERIENCE

Google X

Data Scientist (Part-time) Aug–Dec 2020
Artificial Intelligence Resident May–Aug 2020

- Collaborated closely with a multi-disciplinary team of engineers, researchers, strategy consultants and project managers on a confidential project.
- Ingested, harmonized, and feature-engineered over 150 billion raw data records in 22 disparate datasets from Google internal and external sources (with Python & SQL).
- Initiated and pursued data partnership with 4 internal teams, and 2 external companies.

University of California, Berkeley

Graduate Student Researcher 2016–2021

Ph.D. Dissertation: My research leverages satellite/aerial imagery and machine learning models (e.g., xgboost, DeepLab, and Mask RCNN) to

- recreate the earliest high-resolution map of human settlement patterns in the 1940s–70s and study climate change induced migration in the last century; → GitHub (Python)
- estimate the effects of a cash assistance randomized controlled trial with remotely-sensed wealth indicators, dramatically reducing program evaluation costs; → GitHub (Python & R)
- reconstruct manipulated historical air pollution data in China and study the impacts of improved environmental monitoring on air quality. → GitHub (Python & R)

PUBLICATION

Nature, 2020. "The Effect of Large-scale Anti-contagion Policies on the COVID-19 Pandemic" with S. Hsiang, D. Allen, S. Annan-Phan, K. Bell, I. Bolliger, T. Chong, H. Druckenmiller, A. Hultgren, E. Krasovich, P. Lau, J. Lee, E. Rolf, J. Tseng & T. Wu.

- Covered in 323 news stories by outlets including CNN, the Washington Post, New York Times, NPR, and Reuters.
- Cited 138 times within 3 months of publication.
- Used by policymakers in the White House Office of Management and Budget & the CDC.

Annual Review of Economics, 2019. "Using Randomized Controlled Trials to Estimate Long-Run Impacts in Development Economics" with A. Bouguen, M. Kremer & E. Miguel.

SKILLS

- **Python** (+ PyTorch), **R**, **SQL** (Google BigQuery), **D3.js**;
- Google Cloud Platform, Azure, Docker, Bash, Git, LaTeX.

Last Updated: September 11, 2020