Peter Deffebach

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Skills

- Python, Stata, R, GIS in R, Julia, QGIS, LaTeX, Git
- Survey design and implementation
- Structural estimation of urban and trade economic models

Education

Boston University, PhD, Economics

Sep 2019 - Jun 2025

• Development, Macroeconomics, and Urban Economics | Advised by David Lagakos, Yuhei Miyauchi, and Masao Fukui

Princeton University, BA, Economics

Sep 2013 – Jun 2017

• Spanish Minor, Cum laude

Work Experience

Pricing Economist at Wayfair

July 2025-present

- Design pricing experiments on online platform to optimally set the price of goods
- Conduct power analysis, optimal randomization strategies, panel data analysis, and machine learning causal inference tools
- Coordinate quarterly pricing releases while taking into account the diverse interests of stakeholders across the organization

Research Assistant — Prof. Gabriel Kreindler at Harvard University

Jan 2025–June 2025

- Developed a Julia package for designing optimal urban transportation networks in cities to be used by urban planners
- Implemented a Parallel Tempering algorithm with multi-threading and distributed computing capabilities

Research Assistant — Prof. Yuhei Miyauchi at Boston University

Jul 2020-present

- Managed a rotating team of four Master's degree students, teaching data analysis skills to each cohort
- Processed raw high-frequency smartphone location data into aggregate form to understand mobility patterns using R
- Built quantitative spatial urban model in R to assess effects of infrastructure improvements in Japanese cities

Short Term Consultant — Poverty and Equity Global Practice Group at The World Bank

Jul 2023 – Feb 2024

- Measured increases in poverty between 2019 and 2023 in Sri Lanka using the SWIFT poverty diagnostic tool set
- Employed machine learning techniques in Stata to predict household poverty across surveys and years

Computing Teaching Assistant for — Prof. Yuhei Miyauchi at Boston University

Sep 2022 – Jan 2023

- Led recitations and office hours as only TA. Used GitHub Classroom to grade and give individual feedback via code reviews
- Taught students R, terminal, Git and Github, High Performance Cluster use, as well as computational methods such as optimization, iterative methods, dynamic programming, and bootstrapping

Selected Dissertation Research

Labor Market Churn, Development, and Quits: Evidence from Urban Ghana

- Methods: Conducted a panel survey of job-seekers and a survey of firms in Accra, Ghana. Analyzed differences between Ghana and USA using administrative data in Stata. Built a model of job search in Julia
- Findings: Job-seekers find jobs easily, but then quit at enormous rates. Wage work is a temporary tool to get through hard times

Development and the Spatial Distribution of Income in Cities (w D. Lagakos, Y. Miyauchi, and E. Yamada)

- Methods: Agglomerated 30 person-level travel surveys from developing countries in Stata. Compared with administrative geo-spatial data in R. Built a quantitative urban spatial modeling in Julia
- Findings: Cities in poor vs. rich countries have different income sorting patterns, driven by differences in state capacity

Training Microentrepreneurs over Zoom: Experimental Evidence from Mexico (w D. McKenzie, E. Davies, and L. Iacovone)

- Methods: Analysis of RCT. Designed heterogeneous treatment effect estimation using machine learning methods
- Findings: Zoom training improves business practices and profits in the short run, but effects fade over time
- Published in *The Journal of Development Economics*

Other Professional Activities

- Journal Referee: Review of Economic Dynamics, Journal of Development Economics
- Grants and Awards: Structural Change and Economic Growth (STEG) Small Research Grant (£15,000). International Growth Centre (IGC) Small Research Grant (£20,000), and Full Research Grant (£40,000). Manuel Abdala Award for IED Summer Fieldwork at Boston University
- Visiting student at Georgetown University for Fall 2023

Skills and Personal

- Primary maintainer of the Julia language data manipulation package DataFramesMeta.jl
- Languages: English (native), Spanish (fluent)
- Citizenship: USA