Peter Deffebach

p.deffebach@gmail.com ● pdeffebach.github.io ● 503-853-6255

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
- Power anaysis and randomization, panel data analysis, and machine learning causal inference tools in R and Python
- Coordinate quarterly pricing releases while taking into account diverse interests 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 optimization algorithm with distributed computing capabilities

Research Assistant — Prof. Yuhei Miyauchi at Boston University Jul 2020–Jun 2025
- Managed a rotating team of four Master's degree students, teaching data analysis skills to each cohort
- Reviewed recent research on urban infrastructure and income distribution in developing cities
- Cleaned and analyzed census and household survey data from cities across the world in Stata and R
- Built quantitative spatial urban model in R to assess effects of infrastructure improvements in developing 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 — Prof. Yuhei Miyauchi at Boston University Sep 2022 – Jan 2023
- Led recitations as only TA. Used GitHub Classroom to grade and give individual feedback via code reviews
- Taught R, terminal, Git, Performance Cluster use, optimization, dynamic programming, and bootstrapping

Research

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
- Revise and Resubmit at QJE

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

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*

Skills

- Python, Stata, R, GIS, Julia
- Survey design, Panel data econometrics
- Structural estimation of urban and trade economic models

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

Personal

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