Krzysztof Zaremba

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EDUCATION

Sep 2017–Present	**PhD, Economics, Columbia University** Dissertation: Essays in Health Economics
Sep 2014 – May 2016	**MSc, Economic and Social Sciences, Bocconi University** Thesis: "Spreading of Diseases on the Sexual Networks"
Sep 2011 – May 2014	**BA, Social Sciences, Sciences Po Paris** Concentration in Economics at Dijon Campus

PROFESSIONAL EXPERIENCE

Jun 2020 – Jan 2022	**Columbia University** *Research Assistant: Attacking Tax Evasion in Production Networks* • Designed and executed power calculations on a computing cluster for direct and spillover effects of an experiment on the trade network of Paraguayan firms; contributed to securing a grant of $362,577 • Created, optimized, and securely deployed an interactive dashboard efficiently summarizing data from 240 million tax reports which Paraguayan tax authority used to identify suspicious entities
Sep 2018 –May 2020	*Teaching Assistant* • Communicated concepts in economics and econometrics during classes to 10-30 undergraduate students
Mar 2017 – Jun 2017	**European Commission** *Trainee in DataLab* • Estimated the causal impact of mental distress on the career development among EU officials • Conducted a quantitative analysis of staff wellbeing survey and sentiment analysis of employee comments, and produced a report to communicate the results across departments
Oct 2015-Aug 2016	**Bocconi University** *Research Assistant: Spanish Production Network* • Organized a multidimensional database of 16 million observations in MySQL and mapped the production network of the Spanish economy • Investigated the causal role of network centrality for firms' profits using R and STATA

PROJECT EXPERIENCE

Effects of Intra-Couple Bargaining Power on the Maternal and Neonatal Health*; PhD research, Columbia University*
• Estimated the effect of intrahousehold bargaining on pregnancy outcomes using instrumental variables and data on 40M births
• Constructed bootstrap simulations to show that differences in bargaining account for 5%-10% of racial disparities in health
• Presented findings to the faculty and fellow peers for feedback during seminars

Opening of Hotels and Ski Facilities: Impact on Mobility, Spending, and Covid-19; *PhD research, Columbia University*
• Used Meta geolocation, administrative and web-scraped data to measure the impact of reopening on mobility and spending
• Identified the causal effect on Covid-19 infections leveraging the quasi-experimental design and doubly-robust estimation
• Performed a cost-benefit analysis and showed that costs of the policy were higher than benefits even for groups that were supposed to benefit from the policy

Beware of Fake Friends: Spurious Links and Peer Effects in Networks; *PhD research, Columbia University*
• Derived a bias in an econometric method estimating peer effects under measurement error in network
• Proposed a new test for the existence of peer effects robust to mismeasurement and evaluated its performance with simulations

Poland Covid-19 Mobility Dashboard; *Individual project with Meta: Data for Good*
• Created and maintained an online R Shiny dashboard visualizing detailed mobility patterns in Poland during Covid-19 pandemic based on Facebook geolocation data

Predicting Medical Malpractice Among New York Physicians; *PhD research, Columbia University*
• Led a team of 3 research assistants to create a database of 120,000 NY physicians, including their characteristics, networks, and misconduct history; built prediction models using Python

SKILLS

• **Programming**: R, Python, SQL, Matlab, Stata
• **Methods:** Causal Inference and Power Calculations on Networks, Instrumental Variables, Regression Discontinuity, Difference-in-differences, Regressions, Random Forest, Regularization, Cross-Validation, Experimental Design, Hypothesis Testing
• **Languages:** Polish (native), English (fluent), Italian (fluent), French (fluent)