

ALEXANDR MOSKALEV

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EDUCATION

- University of Michigan, United States** Expected Spring 2020
Ph.D. in Economics
Fields: Financial Economics, Applied Microeconomics
- New Economic School, Russia** July 2014
M.A. in Economics
- Novosibirsk State University, Russia** July 2012
B.S. in Physics, *cum laude*

RESEARCH AND DATA ANALYSIS EXPERIENCE

- University of Michigan, Economics Department** September 2014 – Present
Doctoral Student Researcher *Ann Arbor, MI*
- **Causal inference and program evaluation** with secondary data
 - Applied a Robust Synthetic Control method to show that mutual fund's portfolio structure causally affects the fund's voting decisions.
 - Using Instrumental Variables approach, shown a causal effect of mutual funds' portfolios composition on retail shareholder participation in director elections.
 - **Mathematical and Quantitative Methods** application in modeling heterogeneous agents' behavior
 - Analytically derived a firm's objective function. Verified the result using numerical simulations.
 - Using Principal Component Analysis, classified agenda composition of corporate elections' meetings.
 - **Big Data**, pre- and post-processing experience
 - Merged larger than memory datasets using Python (pandas, HDF5, SQL). Parsed SEC filings (requests, beautifulsoup, regex) from the EDGAR web-database to extract linking information.
 - Using Python (multiprocessing), implemented a MapReduce scheme to process raw data with 40 workers at 2 nodes simultaneously.
 - Wrote a Python module to format OLS/2SLS regressions output (statsmodels, linearmodels) into a unified latex table. Code is available at github.com/moskalev.
- New Economic School** August 2012 – July 2014
Master Student *Moscow, Russia*
- Used Minimal Spanning Trees for endogenous assets classification into groups of equicorrelated assets.
 - Assembled a database of companies characteristics (Excel VBA) during an internship at pwc.

COMMUNICATION AND PRESENTATION EXPERIENCE

- University of Michigan, Economics Department** September 2014 – Present
Doctoral Student Researcher *Ann Arbor, MI*
- Presented research in class and at Michigan Ross Finance Brown-bag and Reading group seminars.
- Head Graduate Student Instructor (Head TA), Introduction to Microeconomics/Macroeconomics*
- Led teams of 5 - 10 TAs: coordinated the material for each week, assigned tasks, and tracked completion.
- Instructor of Record*
- Designed and taught *Principles of Microeconomics* and *Principles of Macroeconomics* courses.

COMPUTER SKILLS

- Programming/Scripting:** Python, Bash, C++, git, PHP, VBA
- Data analysis:** Python, SQL, MySQL/MariaDB, Matlab
- Networking:** ssh, sshfs, iptables, OpenVPN, NFS, sockets (Python)
- Web technologies:** SimpleHTTPServer (Python), Flask (Python), Apache2, WordPress
- Cloud computing:** Virtualization (KVM), Docker, DigitalOcean
- Other:** Linux/Unix, parallel computing, MapReduce, L^AT_EX, Markdown