

2019-2024

# Martin Stancsics

2014–2016	MA in Economics, Central European University, Budapest
2012–2016	Member, Heller Farkas College of Advanced Financial Studies
Spring 2014	Exchange semester, University of Amsterdam
2011–2014	<b>BSs in Economics</b> , <i>Corvinus University of Budapest</i> , Economic and Financial Mathematical Analysis
	Working experience
2024–	<b>Data scientist</b> , <i>Quantco</i> , Zürich Working on Quantco's next generation insurance pricing platform.
2023	Data science intern, Quantco, Zürich Worked on improving Quantco's open source Python package for estimating generalized linear models (glum). Added a formula interface, flexible Wald tests, and other quality-of-life features. Refactored the package serving as its backend (tabmat) to have a more consistent interface. My work during this internship forms the basis of the glum v3 and tabmat v4 releases.
2018–2019	<b>Analyst</b> , <i>National Bank of Hungary</i> , Directorate Financial Analysis  Constructed an IFRS9-compliant model of credit risk for the stress-test of the financial system. Estimated a disequilibrium model of financial constraints. Worked on modeling the effect of EU subsidies on financial constraints.
2016–2018	<b>Junior analyst</b> , <i>National Bank of Hungary</i> , Directorate Financial Analysis Estimated the efficacy and effectiveness of EU subsidies. Estimated and ran satellite models for the stress-test of the financial system.

## Teaching

for loan recovery.

Education

PhD in Economics, Universität Zürich

Lecturer Programming Practices for Research Students (PhD) | Scientific Python | Introduction to Matlab | Overview of Macroeconomics
Universität Zürich, Heller Farkas College for Advanced Financial Studies

2014, 2015 Enhanced a survival model for the probability of default of residential loans with estimate

Teaching Advanced Microeconomics II (MA) | Behavioral Finance (BA) | Analysis I–II

Assistant (BA) | Algebra I–II (BA)

Universität Zürich, Corvinus University of Budapest

Summers of Intern, National Bank of Hungary, Directorate Financial Analysis

## Selected publications

- 2021 Credit constrained firms and government subsidies: evidence from a European Union program, with Eszter Balogh, Adám Banai, Tirupam Goel, Péter Lang, Előd Takáts, Álmos Telegdy
  - BIS Working Papers 984 / MNB Working Papers 2021/5
- 2020 Unfolding the hidden structure of the Hungarian multi-layer firm network, with András Borsos MNB Occasional Papers 139
- 2020 Waste of money or growth opportunity: The causal effect of EU subsidies on Hungarian SMEs, with Ádám Banai, Péter Lang, Gábor Nagy Economic Systems vol. 44 (1), 100742
- 2016 Interest rates and asset distributions of naive hyperbolic discounters Central European University MA Thesis

#### Conferences

- 2023 Hybrid platforms and bargaining Swiss IO day
- 2018 Identifying credit-constrained firms using a disequilibrium model Financial Stability Christmas Seminar
- 2018 Visualizing public transport using Python Budapest BI Forum
- 2017 Estimating the effect of EU subsidies on Hungarian SMEs Financial Stability Christmas Seminar

#### Computer skills

Languages Python, R, Stata, Matlab, SQL (basics), Rust (basics), Haskell (basics)

Markup and rel. Latex, Markdown, Quarto, Jupyter, HTML, CSS (basics)

Data tools dplyr, data.table, pandas, sqlite

Econometrics base R, Ife, statsmodels

Data viz ggplot2, matplotlib, seaborn, altair, vega-lite, bokeh, datashader

ML and NLP sklearn, keras (basics), nltk, spacy (basics), gensim (basics)

Workflow Git, Snakemake, conda, virtualenv, Renv (basics), Docker

Webscraping requests, selenium, beautifulsoup4

Command line bash, powershell (basics), cmd (basics), ssh

Web dev flask (basics), jekyll, nginx (basics)

## Awards and Scholarships

2019 UBS Center Scholarship

Universität Zürich

2015–2016 Peter Hangartner Fellowship | Outstanding Academic Achievement Award |

Outstanding MA Thesis Award

Central European University

2014 Department's Award for Outstanding Achievement

Corvinus University of Budapest

### Selected courses

Universität Field Experiments, Behavioral Economics, Neuroeconomic Foundations of Deci-

Zürich sion Making

ETH Zurich Data Science for Judicial Decision-Making, NLP for Law and Political Economy

Central European Industrial Organization, Network Science, Agent-based Models, Empirical Indus-

University trial Organization

University of Econometrics of Duration Data with Macroeconomic Applications

Crete Advanced Summer School in Economics and Econometrics

Technical Bayesian Inference, Support Vector Machines and Regularized Learning

University of Advanced Statistics and Data Mining Summer School

Madrid (UPM)

## Languages

Mother tongue Hungarian

Full professional English

Basic German

#### Research interests

- Industrial organization

- Behavioral economics

- Machine learning

- Cooperative game theory

- Unstructured bargaining

- Natural Language Processing