

VSEVOLOD IAKOVLEV

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EDUCATION

PhD, Economics

Edinburgh, UK

Heriot-Watt University, Centre for Social and Economic Data Analytics

September 2021 – September 2025

- Dissertation: Essays on labour mismatch with applications of machine learning
- Supervisors: Dr Cristina Tealdi, Dr Rachel Forshaw, Dr Erkal Ersoy
- Annual Reviewers: Prof Arnab Bhattacharjee, Prof Mark E. Schaffer

MSc, Economics

Edinburgh, UK

University of Edinburgh, Scottish Graduate Programme in Economics

September 2020 – August 2021

- Focus on microeconomics, econometrics, labour economics, applied microeconometrics
- Dissertation on the effect of tuition fees on labour mismatch in the UK; supervised by Prof Keith A. Bender

MA (Hons), Economics with Management Science

Edinburgh, UK

University of Edinburgh

September 2016 – May 2020

- Focus on mathematical economics, microeconomics, econometrics, dynamic programming, operational analysis
- Dissertation on the revealed preferences theory and college admissions; supervised by Prof Simon Clark

RESEARCH EXPERIENCE

PhD Research (selected projects)

Edinburgh, UK

Heriot-Watt University

September 2021 – Present

- Designed a measurement framework providing labour mismatch with a foundation in stable matching theory
- Built two labour market simulations allowing to recreate the conditions facilitating labour mismatch
- Developed a Python script integrating stacked double-debiased machine learning with sample weight correction
- Contributed to multi-institutional research collaborations

Research Assistant

Edinburgh, UK

Heriot-Watt University

March 2022 – June 2023

- *Statistical Review of World Energy 2022, 2023 (CEERP)*
Processed and analysed data on countries' natural gas and oil supply and demand using MS Excel and Access.
Worked in collaboration with colleagues from BP and the Energy Institute.
- *Current Population Survey datasets matching*
Developed R scripts to track and match respondent IDs across 33 years of CPS data, improving panel continuity and data reliability

INDUSTRY EXPERIENCE

Analyst Intern

Edinburgh, UK

IC Select

June 2020 – August 2020

- Built an MS Access database to centralise fiduciary manager selection data.
- Conducted an analysis of fiduciary managers' reports and presented findings to the team.

Activity Leader

Edinburgh, UK

Fettes Centre for Language and Culture

July 2017, July 2018

- Supervised students on campus, led project sessions and excursions, organised summer camp activities

TEACHING EXPERIENCE

University of Edinburgh

September 2021 – May 2024

- SGPE Econometrics 1 (postgraduate) – Tutor
- SGPE Econometrics 1 (postgraduate) – Stata labs assistant

Heriot-Watt University

January 2023 – May 2024

- Econometric Methods (postgraduate) – Stata labs assistant
- The Economy (undergraduate) – Exam marker

PUBLICATIONS & WORKING PAPERS

Skill vs. education types of labour mismatch and their association with earnings (2024) in Accountancy, Economics, and Finance Working Papers (No. 2024-12)

Using machine learning methods to estimate the gender wage gap (2024) in Machine Learning for Econometrics and Related Topics (pp. 109-129). Cham: Springer Nature Switzerland., with R. J. Forshaw, M. E. Schaffer, C. Tealdi

An Introduction to Stacking Regression for Economists (2022) in International Conference of the Thailand Econometrics Society (pp. 7-29). Springer, Cham, with A. Ahrens, E. Ersoy, H. Li and M. E. Schaffer

CONFERENCE PRESENTATIONS

2025

- SGPE Residential Conference Crieff, UK

2024

- Workshop on Frontiers of Macro – Labour Economics Edinburgh, UK
- Scotland and Northern England Conference in Applied Microeconomics Crieff, UK
- SGPE Residential Conference Crieff, UK

2023

- SGPE Residential Conference Crieff, UK

CODE

`toysimlm` – Python implementation of a simple microsimulation of labour mismatch based on a static interpretation of the two-sided matching model

`dap_mrs` – Python implementation of the deferred acceptance procedure designed to compute an applicant-optimal assignment using agents' characteristics and their counterparts' marginal rate of substitution

`mismatch_toolbox` – Python implementation of multiple approaches for computing educational and skill mismatch using data from the 1st Cycle of the Survey of Adult Skills (PIAAC)

SKILLS

Programming: Python (pandas, NumPy, Matplotlib, scikit-learn, DoubleML), Stata, R, MATLAB

Tools: Git, Excel, MS Access, GAMS, L^AT_EX

Methods: Economic modelling, econometrics, machine learning, causal inference, simulation modelling

Datasets: PIAAC, LFS, CPS, energy data

Languages: Russian (native), English (fluent)

LEADERSHIP & VOLUNTEERING

Jiu Jitsu Instructor

Edinburgh, UK

James Gillespie's High School, Edinburgh University Jiu Jitsu Club

September 2021 – Present

- Volunteered to lead junior and university-level jiu jitsu sessions; certified instructor under the Jiu Jitsu Foundation

Team Captain and Wellbeing Officer

Edinburgh, UK

Edinburgh University Judo Club

April 2024 – April 2025

- Provided support for the university judo team and helped to organise the travel logistics

Treasurer

Edinburgh, UK

Edinburgh University Jiu Jitsu Club

June 2020 – July 2021

- Planned the club's budget and managed its finances throughout the academic year

Co-Founder and Treasurer

Edinburgh, UK

ScotQuan

March 2019 – May 2020

- Co-founded a student-led data-consulting social enterprise, and managed its finances and business development

WORKSHOPS & TRAINING

Treatment Effects and Machine Learning

University of Oxford

Oxford, UK

September 2022

Machine Learning for Economists

University of St Andrews

St Andrews, UK

August 2022

AWARDS

First Place Award for SGPE Econometrics Project

May 2021

Fettes Centre for Language and Culture Staff Above and Beyond Award

July 2018