# JACOB PICHELMANN

### Graduate Student in Econometrics and Data Enthusiast

@ jacob.pichelmann@pichelmann.com ♀ Vienna, Austria

### EXPERIENCE

### **Research Assistant**

#### University of Zurich

🛗 Nov. 2020 – August 2021 🛛 💡 Remote

- Prepared an extensive data set of trade volumes and macroeconomic variables by scraping various sources, amounting to roughly 40 million observations.
- Conducted econometric analysis of macro data which was presented in the Kühne Center Impact Series.

### Intern

### Erste Bank Group AG

🛗 May 2020 – July 2020

Vienna, Austria

- Assisted the development of a production ready machine learning pipeline to detect financial crime.
- Crafted an in-depth data quality report and developed solution strategies. Established a set of data quality indicators for inproduction usage.

### Intern/Consultant

# Organisation for Economic Co-operation and Development (OECD)

🛗 March 2019 – March 2020 🛛 🕈 Paris, France

- Coauthored a working paper investigating the drivers of residential mobility patterns which included conducting rigorous econometric analysis of micro data (published in Oct. 2020).
- Hosted a seminar and presented key findings to stakeholders and country desks.

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### Co-founder

### Findus App OG - Event Search and Categorization

🛗 March 2015 – June 2018 🛛 🕈 Vienna, Austria

- Developed a business plan and optimization strategies, orchestrated the product and structural design of a mobile app.
- Mined data from HTML sources and various APIs, managed an extensive database and applied commonly used NLP techniques to develop categorical clusters.

Civilian Service

### Refugee Support Organisation Verein Ute Bock

October 2013 – June 2014 Vienna, Austria

- Coordinated a series of fundraising events, collecting a record sum of 45.000€ in donations.
- Provided legal counselling for refugees (supported by experts), involving regular interactions with the government.

### SKILLS

R, Python, SQL, LaTeX Azure, Spark, Keras, PyTorch Eviews, Stata, Excel, MS Office Adobe XD, Adobe Photoshop, Lightroom

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### EDUCATION

in linkedin.com/in/jacob-pichelmann

MSc in Econometrics & Empirical Economics

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### **Toulouse School of Economics (TSE)**

🛗 September 2019 – October 2021

- Rank 8 worldwide (IDEAS).
- Finished top of cohort, with highest honors.
- Specialized in empirical IO, financial econometrics, machine learning and data analytics.

### Magister Legum in Law

University of Vienna

🛗 October 2015 - Now

### **BSc in Economics**

### Vienna University of Econ. and Business (WU)

🛗 October 2015 – November 2018

• Passed with highest honors, rank 30 (top 1%).

**BSc in Technical Physics** 

### Vienna University of Technology

October 2014 – July 2015 (discontinued)

### SELECTED PROJECTS

### Sustainability Data Science Challenge

• Developed a Keras image segmentation pipeline to estimate CO2 emissions, biodiversity and solar potential of satellite images. Managed to boost performance by 80% using custom augmentation techniques to balance training data. (hosted by Microsoft and others, rank 1 as of Oct. 2021)

#### Beyond Efficiency: A Novel Framework to Measure Tradeflow Resilience

• Established a novel method of parametrizing the theoretical notion of resilience using smooth autoregressive transition models. (MSc Thesis, to be used in UZH research)

#### Political Knowledge and Voting Behaviour

• Developed and estimated a two dimensional proximity model of voting to investigate the effect of political knowledge on voter's ability to vote in their best interest. (Student Paper, TSE)

## The Efficient Market Hypothesis in the Age of Neural Networks

• Applied machine learning techniques (RNNs) to predict stock price movements, rigorously evaluated AI based trading strategies. (BSc thesis)

### **GRANTS/OTHER**

- Dean's List awardee, WU
- Merit-based scholarship grant 2016/2017/2018 (WU) and TSE scholarship in 2020
- Certified skiing instructor, coach of a local league soccer team, fluent in German & English