

# Jakob R. Juergens

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## Education

<b>Ph.D.</b>	Economics	UNIVERSITY OF WISCONSIN – MADISON	2022 – Present
<b>M.Sc.</b>	Economics	UNIVERSITY OF WISCONSIN – MADISON	2022 – 2024
<b>M.Sc.</b>	Economics	UNIVERSITY OF BONN	2020 – 2022
<b>B.Sc.</b>	Economics	UNIVERSITY OF BONN	2017 – 2020

## Working Papers

**Jackknife Variance Estimation for Hájek-Dominated Generalized U-Statistics** [arXiv:2509.12356](https://arxiv.org/abs/2509.12356) 

This paper proves ratio-consistency of the jackknife variance estimator for a broad class of Hájek-dominated generalized U-statistics, including the classical fixed-order case. It also delivers weaker sufficient conditions for consistent variance estimation in two-scale distributional nearest-neighbor regression.

**Robust Inference for Conditional Z-Estimation via Distributional Nearest Neighbors**

This paper develops a localized distributional nearest-neighbor framework for pointwise inference on conditional moment targets, including heterogeneous treatment effects and conditional quantile slopes. It combines orthogonal scores with leave-one-out stability in place of cross-fitting and yields feasible inference using a jackknife variance estimator and a localized finite-difference Jacobian.

## Research Experience

<b>Research Assistant</b>	UNIVERSITY OF WISCONSIN – MADISON	Sep 2024 – Present
<ul style="list-style-type: none"> <li>Implement Julia methods and simulations for Jack Porter’s work on asymptotic theory for batched bandits</li> </ul>		
<b>Project Assistant</b>	UNIVERSITY OF WISCONSIN – MADISON	Jun 2023 – Aug 2023
<ul style="list-style-type: none"> <li>Implemented Julia methods and simulations for Jack Porter’s work on batched bandits and conducted literature research on weak-IV inference</li> </ul>		
<b>Research Assistant</b>	UNIVERSITY OF BONN	Nov 2020 – Jun 2022
<ul style="list-style-type: none"> <li>Research assistant for Joachim Freyberger and Lena Janys; developed simulation code in R and C++ for large-scale runs on supercomputing clusters</li> <li>Developed materials for Joachim Freyberger’s Ph.D. Econometrics course</li> </ul>		
<b>Intern</b>	GERMAN COUNCIL OF ECONOMIC EXPERTS	Aug 2020 – Oct 2020
<ul style="list-style-type: none"> <li>Supported the Business Cycle Analysis and Monetary Policy teams on GDP forecasting with mixed-frequency data and publication lags</li> </ul>		
<b>Student Assistant</b>	UNIVERSITY OF BONN	Apr 2018 – Jun 2020
<ul style="list-style-type: none"> <li>Scientific and administrative assistant of Jürgen von Hagen</li> </ul>		

## Teaching Experience

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- Teaching Assistant** **Introductory Econometrics** Spring 2024
- Held discussion sections and office hours for Christopher McKelvey; focused on estimation, empirical examples, and Stata
- Teaching Assistant** **Mathematical Economics (Ph.D. Math Camp)** Fall 2023
- Held discussion sessions and office hours for John Kennan; prepared handouts on proofs, metric spaces, optimization, and linear algebra

## Conference and Seminar Presentations

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- 60th Annual Meeting of the Canadian Economics Association (Talk)** May 2026
- New York Camp Econometrics XX (Poster Session)** April 2026
- New York Camp Econometrics XIX (Poster Session)** April 2025






## Awards and Scholarships

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- Student Research Grants – Conference Presentation** UW – MADISON 2025
- Juli Plant Grainger Teaching Excellence Scholarship** UW – MADISON Fall 2023
- Two-Year Graduate School Fellowship** UW – MADISON 2022
- Scholarship** GERMAN ACADEMIC SCHOLARSHIP FOUNDATION 2016 – 2024
- Honors Program** UNIVERSITY OF BONN 2019 – 2022

## Selected Earlier Projects and Service

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- Co-Organizer:** Ph.D. Student Reading Group – Econometrics
- Master’s Thesis:** Bugni and Horowitz (2021) Permutation Tests for the Equality of Distributions of Functional Data [Repo](#) 
- Course Project:** Basis Choice for Scalar-on-Function Regression with Applications to Near-Infrared Spectroscopy [Repo](#) 
- Course Project:** Outlier Detection in Sensor Data using Functional Depth Measures [Repo](#) 
- Course Project:** Comparison of Variable Importance Feature Selection Methods in Continuous Response Random Forest [Repo](#) 
- Bachelor’s Thesis:** Malicious Intent and Multiple Testing in Regression Discontinuity Estimation [PDF](#) 

## Citizenship and Languages

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- Citizenship** German
- Languages** German (native) English (fluent) French (intermediate) Mandarin (beginner)