

Patrick Kramer

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EDUCATION

Carnegie Mellon University PhD in Machine Learning and Statistics GPA: 3.99/4.00 Advisor: Edward H. Kennedy, Sivaraman Balakrishnan	Pittsburgh, PA Expected: May 2029
Carnegie Mellon University M.S. in Statistics GPA: 4.05/4.00	Pittsburgh, PA May 2026
Leipzig University Joint M.S./B.S. equivalent (German Diplom) in Mathematics with distinction Class Rank: 1 of 65 Thesis: Regression Discontinuity Designs with Covariates (Advisor: Alexander Fuchs-Kreiss)	Leipzig, Germany July 2024
Leipzig University "Vordiplom" (German degree, equivalent to B.S.) in Mathematics Class Rank: 1 of 65	Leipzig, Germany May 2022
Leipzig University B.S. in Computer Science Class Rank: 1 of 252 Thesis: A Generalization of the Iteration Theorem for Recognizable Formal Power Series (Advisor: Andreas Maletti)	Leipzig, Germany September 2019

RESEARCH INTERESTS

I am interested in Machine Learning, Causal Inference, and Optimization, and particularly their intersection.

RESEARCH EXPERIENCE

Carnegie Mellon University Doctoral Researcher	Pittsburgh, PA January 2026 - present
Project: <i>Doubly Robust R-Learner for the Conditional Average Treatment Effect</i> Mentor: Edward H. Kennedy	July 2026 - present
Project: <i>Optimal Treatment Policies through Optimal Transport</i> Mentors: Sivaraman Balakrishnan and Edward H. Kennedy	March 2026 - present
Project: <i>Causal Inference with High-Dimensional Treatments</i> Mentor: Edward H. Kennedy	January 2025 - July 2026
Leipzig University Graduate Researcher	Leipzig, Germany August 2022 - October 2023
Project: <i>Estimating Average Treatment Effects in Regression Discontinuity Designs with Covariates</i> Mentor: Alexander Fuchs-Kreiss	

INVITED TALKS

Joint Statistical Meetings (JSM), Session for JSM Student Best Paper Award Winners Causal Inference with High-Dimensional Treatments	Boston, MA August 2026
INFORMS Annual Meeting Causal Inference with High-Dimensional Treatments	Atlanta, GA October 2025

PAPERS

Kramer, P., Kennedy, E. H., Oppen, I. M. *Causal Inference with High-Dimensional Treatments*. arXiv preprint arXiv:2602.21423, 2026. Honored with 2026 JSM Student Best Paper Award.

Kramer, P., Fuchs-Kreiss, A. *Estimating Average Treatment Effects in Regression Discontinuity Designs with Covariates under Minimal Assumptions*. arXiv preprint arXiv:2310.08976, 2023. (Submitted to Metrika, currently working on revisions)

WORK EXPERIENCE

PricewaterhouseCoopers (PwC)

Associate Finance Transformation

Leipzig, Germany

February 2022 - June 2024

Check24

Front End App Developer for Android

Leipzig, Germany

May 2020 - January 2022

TEACHING EXPERIENCE

Carnegie Mellon University

Teaching Assistant - Introduction to Probability Modeling

Pittsburgh, PA

Spring 2025

Teaching Assistant - Mathematical Statistics and Probability Theory

Fall 2024

Leipzig University

Teaching Assistant - Calculus for Computer Scientists

Leipzig, Germany

Fall 2018

Teaching Assistant - Computer Hardware Engineering

Summer 2018

Teaching Assistant - Modeling and Programming

Summer 2018

HONORS AND AWARDS

ASA Student Best Paper Award (SLDS Section) | American Statistical Association | \$1000

January 2026

Top Student Award | Top 1% of 350 students in 3 database courses | Database Group, Leipzig University

December 2018

SCHOLARSHIPS

Deutschlandstipendium | German Federal Ministry of Education and Research | €3600

October 2021 - September 2022

Deutschlandstipendium | German Federal Ministry of Education and Research | €9000

October 2017 - March 2020

ACADEMIC SERVICE

Co-Organizer - Causal Inference Reading Group, Carnegie Mellon University

August 2025 - present

Member - PhD Professional Committee, Carnegie Mellon University

August 2024 - July 2025

SKILLS

- **Programming Languages:** R, Python, C, C++, Kotlin, Java, SQL, JavaScript, MATLAB
- **Technologies:** TensorFlow, PyTorch, NumPy, Pandas, Scikit-Learn, CVXPY, Git, Visual Studio Code, RStudio, LaTeX