Junhyung Park

updated 15th July, 2025

▬▬▬▬ Education

Nov.2019– May.2024
PhD in Machine Learning, *Empirical Inference Department, Max Planck Institute for Intelligent Systems*, Tübingen, Germany
Thesis: "A Measure-Theoretic Axiomatisation of Causality and Kernel Regression", supervised by **Krikamol Muandet** and **Bernhard Schölkopf**

Sep.2017 – Aug.2019
MSc in Statistics, *Seminar für Statistik, Dept. of Mathematics, ETH Zürich*, Switzerland
Thesis: "Kernel Measures of Conditional Dependence", supervised by **Sara van de Geer**
Brownian Motion and Stochastic Calculus, Fundamentals of Mathematical Statistics, Computational Statistics, Introduction to Machine Learning, etc.

Oct.2015 – Jun.2016
MMath in Mathematics, *Trinity College, University of Cambridge*, Cambridge, UK
Commutative Algebra, Functional Analysis, Differential Geometry, Representation Theory, etc.

Oct.2012 – Jun.2015
BA in Mathematics, *Trinity College, University of Cambridge*, Cambridge, UK
Galois Theory, Linear Analysis, Differential Geometry, Number Fields, Complex Analysis, etc.

▬▬▬▬ Work Experience

Oct.2024 –
Post-Doctoral Researcher, *ETH Zürich*, Switzerland
Supervised by **Fanny Yang**

Sep.2024 – Dec.2024
Visiting Scholar, *Simons Institute, UC Berkeley*, California, US
Programme: **Modern Paradigms in Generalization**

Aug.2023 – Dec 2023
Applied Scientist Intern, *Amazon Web Services*, Santa Clara, California, US
Supervised by **Shiva Kasiviswanathan** and **Patrick Blöbaum**

Sep.2016 – Jun.2017
Junior Researcher in Statistics, *Caleb ABC*, Seoul, Korea
Developed data envelopment analysis and logistic regression features on B-Box, a statistics software

▬▬▬▬ Publications

Submitted 2025
Wegel, T., So, G., Park, J. and Yang, F. On the sample complexity of semi-supervised multi-objective learning

Submitted 2025
Näf, J., Park, J. and Susmann, H. Causal-DRF: Conditional Kernel Treatment Effect Estimation using Distributional Random Forest

Submitted 2024
Park, J., Blöbaum, P. and Kasiviswanathan, S. A Classical View on Benign Overfitting: The Role of Sample Size

UAI 2024
Buchholz, S.*, Park, J.* and Schölkopf, B. Products, Abstractions and Inclusions of Causal Spaces.

PCIC 2024
Dhanakshirur, M., Laumann, F., Park, J. and Barahona, M. A continuous Structural Intervention Distance to compare Causal Graphs.

NeurIPS 2023 Oral (77/12343)	Park, J., Buchholz, S., Schölkopf, B. and Muandet, K. A Measure-Theoretic Axiomatisation of Causality.
Entropy 2023	Laumann, F., Von Kügelgen, J., Park, J., Schölkopf, B. and Barahona, M. Kernel-based Independence Tests for Causal Structure Learning on Functional Data.
ALT 2023	Park, J. and Muandet, K. Towards Empirical Process Theory for Vector-Valued Functions: Metric Entropy of Smooth Function Classes.
ICML 2021	Park, J., Shalit, U., Schölkopf, B. and Muandet, K. Conditional Distributional Treatment Effect with Kernel Conditional Mean Embeddings and U-Statistic Regression.
arXiv 2020	Park, J. and Muandet, K. Regularised Least-Squares Regression with Infinite Dimensional Output Space.
NeurIPS 2020	Park, J. and Muandet, K. A Measure-Theoretic Approach to Kernel Conditional Mean Embeddings.

Presentations (I = invited talk, C = contributed talk, P = poster)

Jul 2025, I	Max Planck Institute for Intelligent Systems, Tübingen, **Causal and Counterfactual Spaces**
Jul 2025, I	Technical University of Munich, **A Measure-Theoretic Axiomatisation of Causality**
Jun 2025, I	German Research Center for Artificial Intelligence, **A Measure-Theoretic Axiomatisaiton of Causality**
Apr 2025, I	Seoul National University, **A Measure-Theoretic Axiomatisaiton of Causality**
Jan 2025, I	Korea University, **A Measure-Theoretic Axiomatisation of Causality**
Jan 2025, I	Korean Institute for Advanced Study (KIAS), **A Measure-Theoretic Axiomatisation of Causality**
Nov 2024, I	University of Pisa, **A Measure-Theoretic Axiomatisation of Causality**
Oct 2024, I	Seminar for Statistics, ETH Zürich, **A Measure-Theoretic Axiomatisation of Causality**
Aug 2024, I	University of Copenhagen, **A Measure-Theoretic Axiomatisaiton of Causality**
Feb 2024, I	ETH Zürich, **A Measure-Theoretic Axiomatisation of Causality**
Nov 2023, I	Leipzig University, **A Measure-Theoretic Axiomatisation of Causality**
Nov 2023, I	Amazon, **A Measure-Theoretic Axiomatisation of Causality**
Oct 2023, I	Stanford University, USA, **A Measure-Theoretic Axiomatisaiton of Causality**
Jul 2023, P	European Meeting of Statisticians, Warsaw, Poland, **Towards a Measure-Theoretic Axiomatisation of Causality**
May 2023, C	Colloquium on "Fundamental Challenges in Causality", Grenoble, France, **Towards a Measure-Theoretic Axiomatisation of Causality**
Apr 2023, I	Colloquium on "When Causal Inference meets Statistical Analysis", Paris, France, **Towards a Measure-Theoretic Axiomatisation of Causality**
Apr 2023, C	Workshop on Causal Representation Learning, Tübingen, Germany, **Towards a Measure-Theoretic Axiomatisation of Causality**
Mar 2023, I	CISPA – Helmholtz Center for Information Security, Saarbrücken, Germany, **Towards a Measure-Theoretic Axiomatisation of Causality**
Sep 2022, I	ELISE Theory workshop on machine learning fundamentals, Antibes, France, **Kernel Conditional Mean Embeddings and Empirical Process Theory for Vector-Valued Functions**

Jul 2022, C	Saint Flour Probability Summer School, Saint Flour, France, **Empirical Process Theory for Vector-Valued Functions**
Mar 2022, I	Cornell University, USA, **Distributional Treatment Effects with Kernels**
Jul 2020, I	Petnica Summer Institute Machine Learning (Microsoft, Belgrade), **Kernel Methods in Machine Learning**
Feb 2020, P	Workshop on Functional Inference and Machine Intelligence, Eurecom, Antibes, France, **A Measure-Theoretic Approach to Kernel Conditional Mean Embeddings**

Reviews

ACML	2020, 2021
AoS	2021, 2023
NeurIPS	2021, 2022, 2023, 2024
ICLR	2022
AISTATS	2022 (Top 10% of reviewers), 2023
ICML	2022, 2023, 2024
Analysis and Applications	2023
Biometrika	2023
CDC	2022
TPAMI	2024

Technical Skills

Programming	PYTHON, R, MATLAB
Software	LATEX

Languages & Additional Activities

Languages	Korean (Mother Tongue), English (Bilingual), French (Intermediate), German (Elementary)
Football	Member of Trinity College 1st Football Team (2012-2016) with captaincy (2013-2014). Member of TV Derendingen 2021–2024
Other Sports	Badminton, Running, Gym
Music	Piano, grade 8, Associated Board of the Royal Schools of Music, UK

Volunteer Experience

Oct.2012 – Jun.2013	**Volunteer teaching assistant**, *Perse School*, Cambridge, UK Helping underperforming students with maths
Oct.2014 – Jun.2016	**Soup run**, Cambridge, UK Handing out food to the local homeless population.
Dec.2015	**Warehouse volunteer**, *Care4Calais*, Calais, France Sorting and distributing donated goods to refugees
May.2024 – Jun.2024	**WASH centre volunteer**, *Collective Aid*, Calais, France Doing laundry for refugees