Junhyung Park

updated 14th September, 2025

Education

Nov.2019– Jul.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

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Publications

Submitted 2025 — **Park, J., Icard, T. and Yang, F.** Counterfactual spaces

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, K.** 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

Invited Talks

Oct 2025	Technical University of Munich, **Causal and Counterfactual Spaces**
Jul 2025	MPI for Intelligent Systems, Tübingen, **Causal and Counterfactual Spaces**
Jul 2025	Technical University of Munich, **A Measure-Theoretic Axiomatisation of Causality**
Jun 2025	German Research Center for Artificial Intelligence, **A Measure-Theoretic Axiomatisaiton of Causality**
Apr 2025	Seoul National University, **A Measure-Theoretic Axiomatisaiton of Causality**
Jan 2025	Korea University, **A Measure-Theoretic Axiomatisation of Causality**
Jan 2025	Korean Institute for Advanced Study, **A Measure-Theoretic Axiomatisation of Causality**
Nov 2024	University of Pisa, **A Measure-Theoretic Axiomatisation of Causality**
Oct 2024	Seminar for Statistics, ETH Zürich, **A Measure-Theoretic Axiomatisation of Causality**
Aug 2024	University of Copenhagen, **A Measure-Theoretic Axiomatisation of Causality**
Feb 2024	ETH Zürich, **A Measure-Theoretic Axiomatisation of Causality**
Nov 2023	Leipzig University, **A Measure-Theoretic Axiomatisation of Causality**
Nov 2023	Amazon, **A Measure-Theoretic Axiomatisation of Causality**
Oct 2023	Stanford University, USA, **A Measure-Theoretic Axiomatisation of Causality**
Jul 2023	European Meeting of Statisticians, Warsaw, Poland, **Towards a Measure-Theoretic Axiomatisation of Causality**
May 2023	Colloquium on "Fundamental Challenges in Causality", Grenoble, France, **Towards a Measure-Theoretic Axiomatisation of Causality**
Apr 2023	Colloquium on "When Causal Inference meets Statistical Analysis", Paris, France, **Towards a Measure-Theoretic Axiomatisation of Causality**
Apr 2023	Workshop on Causal Representation Learning, Tübingen, Germany, **Towards a Measure-Theoretic Axiomatisation of Causality**
Mar 2023	CISPA – Helmholtz Center for Information Security, Saarbrücken, Germany, **Towards a Measure-Theoretic Axiomatisation of Causality**
Sep 2022	ELISE Theory workshop on machine learning fundamentals, Antibes, France, **Kernel Conditional Mean Embeddings and Empirical Process Theory for Vector-Valued Functions**
Jul 2022	Saint Flour Probability Summer School, Saint Flour, France, **Empirical Process Theory for Vector-Valued Functions**
Mar 2022	Cornell University, USA, **Distributional Treatment Effects with Kernels**
Jul 2020	Petnica Summer Institute Machine Learning (Microsoft, Belgrade), **Kernel Methods in Machine Learning**

Teaching Experience

Autumn 2025	Advanced topics in machine learning, Guarantees in machine learning
Spring 2025	Introduction to machine learning

Reviews

NeurIPS	2021, 2022, 2023, 2024, 2025
ICML	2022, 2023, 2024, 2025
JMLR	2025
AoS	2021, 2023
ICLR	2022
AISTATS	2022 (Top 10% of reviewers), 2023
Biometrika	2023

Analysis and Applications	2023
CDC	2022
TPAMI	2024
TMLR	2025

Technical & Language Skills

Programming	PYTHON, R, MATLAB
Software	LaTeX
Languages	Korean (Mother Tongue), English (Bilingual), French (Intermediate), German (Elementary)

Additional Activities

Football	Member of Trinity College 1st Football Team (2012–2016) with captaincy (2013–2014). Member of TV Derendingen (2021–2024)
Music	Piano, grade 8, Associated Board of the Royal Schools of Music, UK

Volunteering 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**, *CollectiveAid*, Calais, France Laundry and tent distribution for refugees.