

DAMIAN MACHLANSKI

PUBLICATIONS (PREPRINTS)

Hyperparameter Tuning and Model Evaluation in Causal Effect Estimation

Machlanski, D., Samothrakis, S., & Clarke, P. (2023). <https://doi.org/10.48550/arXiv.2303.01412>

Undersmoothing Causal Estimators with Generative Trees

Machlanski, D., Samothrakis, S., & Clarke, P. (2022). <https://doi.org/10.48550/arXiv.2203.08570>

EDUCATION

PhD Computer Science | University of Essex

OCT 2020 – PRESENT

Project: Machine learning for causality with applications in the social and economic sciences.

Other: Student Representative; Graduate Laboratory Assistant.

MSc Artificial Intelligence | University of Essex

OCT 2018 – SEP 2020

Overall mark: 90 (distinction). Project: A study of spike-triggered EEG waveforms based on automated surface EMG decomposition of muscle activity comprising primal and fine hand movements. Other: The MSc Project Prize in the area of Computer Science.

BEng Computer Science | West Pomeranian University of Technology in Szczecin

OCT 2010 – JUN 2014

Overall mark: 4.5/5. Project: Traffic Simulator based on Cellular Automata (two-person team).

Other: Microsoft Student Partner - chairman of a local student society; Rector's scholarship for the best students in the academic year 2011/2012 and 2012/2013.

TEACHING EXPERIENCE

Graduate Laboratory Assistant | University of Essex

FEB 2021 – PRESENT

Module: CE888 Data Science and Decision Making. Duties: Labs, marking, guest lecture + lab.

IADS Summer School | University of Essex

JUL 2021, JUL 2022 AND JUL 2023

Course title: Machine learning for causal inference from observational data. Details: A one-day course with lectures and labs.

ESRC National Centre for Research Methods

JUN 2021 AND OCT 2022

Course title: Introduction to machine learning for causal analysis using observational data.

Details: Designed, prepared and delivered practical sessions.

PRESENTATION EXPERIENCE

Inawisdom | London

JAN 2023

Knowledge exchange. Delivered two talks: "Introduction to Causality: new opportunities, applications and limitations" and "Causal Machine Learning: tools, challenges and best practices".

Causal Data Science Meeting | Online

NOV 2022

Title: The importance of hyperparameter tuning in causal effect estimation. Links: [info](#), [pdf](#).

MiSoC Annual Research Workshop | Online

MAR 2021

Title: Causal discovery for treatment effect estimation from observational data.

SOFTWARE

CATE Benchmark

<https://github.com/misoc-mml/cate-benchmark>

Undersmoothing Causal Estimators with Generative Trees

<https://github.com/misoc-mml/undersmoothing-data-augmentation>

Hyperparameter Tuning and Model Evaluation in Causal Effect Estimation

<https://github.com/misoc-mml/hyperparam-sensitivity>

PROFESSIONAL EXPERIENCE

Software Developer | Oxford Computer Consultants

SEP 2014 – AUG 2020

Junior Software Developer | Autocomp Management

OCT 2013 – AUG 2014

AWARDS

ESRC Research Centre on Micro-Social Change Funded Scholarship

OCT 2020 – OCT 2023

Fees + Standard Maintenance with Advanced Quantitative Methods Enhanced Stipend

The MSc Project Prize in the area of Computer Science

2019/2020

Academic prize for the MSc dissertation project

Rector's scholarship for the best students in the academic year

2011/2012 AND 2012/2013

During the BEng degree