

Edgar Klenske

PhD student

date of birth

1986-08-13

contact

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focus

machine learning
predictive control

languages

german mother tongue
english fluency
swedish basics

Matlab fluency
C++ intermediate
Python basics

education

- 2012-11 **PhD in machine learning** Max Planck Institute for Intelligent Systems, Tübingen, Germany
→present Institute for Dynamical Systems and Control, ETH Zürich
Nonparametric Disturbance Correction and Nonlinear Dual Control.
Supervisor: Melanie Zeilinger (ETH), advisor: Philipp Hennig (MPI).
- 2006-10 **Diplom (diploma) in engineering cybernetics** University of Stuttgart, Germany
→2012-07 Diplom thesis: *Nonparametric System Identification and Control for Periodic Error Correction in Telescopes.*
Supervisors: Bernhard Schölkopf and Frank Allgöwer, advisors: Philipp Hennig, Stefan Harmeling and Gregor Göbel.
Graded 1.0 on German university scale from 1.0 (very good) to 5.0 (fail).
Overall grade point average 1.6 on German university scale.
- 1996-09 **Abitur (A-Levels)** Theodor-Heuss-Gymnasium, Pforzheim
→2005-06 Grade point average 1.3 on German school scale from 1.0 (very good) to 6.0 (insufficient).

publications (peer-reviewed)

articles in journals

Dual Control for Approximate Bayesian Reinforcement Learning

E.D. Klenske, P. Hennig

Journal of Machine Learning Research, 2016. →WWW, →PDF

Gaussian Process Based Predictive Control for Periodic Error Correction

E.D. Klenske, M.N. Zeilinger, B. Schölkopf, P. Hennig

IEEE Transactions on Control Systems Technology, 2016. →DOI, →PDF

articles in conference proceedings

Approximate Dual Control Maintaining the Value of Information with an Application to Building Control

E.D. Klenske, P. Hennig, B. Schölkopf, M.N. Zeilinger

Proceedings of the European Control Conference, 2016.

Nonparametric Dynamics Estimation for Time Periodic Systems

E.D. Klenske, M.N. Zeilinger, B. Schölkopf, P. Hennig

Proceedings of the Annual Allerton Conference on Communication, Control, and Computing, 2013. →DOI

professional experience

- 2006-08 **Owner** Implexus Computerservice, Tiefenbronn, Germany
→2013-12 Side-business, computer service for small companies and consumers
- 2011-03 **Internship** ESG Elektroniksystem- und Logistik GmbH, Fürstenfeldbruck, Germany
→2011-05 Modeling traffic rule knowledge for autonomous driving systems

invited talks & visits

- Oxford Robotics Research Group, University of Oxford, 2016
- Workshop on Analytic Probabilistic Radiation Treatment Planning, Tübingen, 2016
- Institut für Technik Autonomer Systeme, UniBw, München, 2016
- Bosch Corporate Research, Renningen, 2015
- Computational Learning & Motor Control Lab, University of Southern California, 2014
- EECS Department, University of California at Berkeley, 2014
- Machine Learning and Robotics Colloquium, University of Stuttgart, 2014

community

summer schools

- Machine Learning Summer School (MLSS), Tübingen, 2013: responsible for video recording and post-processing. Available on →youtube
- Machine Learning Summer School (MLSS), Tübingen, 2013: responsible for video recording.

contributed reviews for

- Neural Information Processing Systems (NIPS)
- International Conference on Machine Learning (ICML)
- Journal for Machine Learning Research (JMLR)

teaching assistance

- teaching assistant for the lecture *Intelligent Systems I* at the University of Tübingen (WS2012)
- teaching assistant for the lecture *Echtzeitdatenverarbeitung (real-time data processing)* at the University of Stuttgart (SS 2009)

outreach

- weekend seminar on *probability and uncertainty* for gifted high-school students, in collaboration with the Heidelberg Life Science Lab, March 2013 (Together with Philipp Hennig and Martin Kiefel)

student representation

- PhD representative of the Empirical Inference Department at the Max-Planck-Institute for Intelligent Systems, Tübingen (1 year)
- student delegate to the undergrad committee at the University of Stuttgart (2 terms)
- student delegate to the appointment committee *Computation in Control* at the University of Stuttgart
- student delegate to the joint committee *mechanical engineering* at the University of Stuttgart (2 terms)

leadership

- vice-president of the student initiative for network security and technology transfer (1 year)

awards & scholarships

2010-12	VDI Elevate Scholar	Verein Deutscher Ingenieure (Association of German Engineers)
→2013-04	Scholarship providing seminars in management and soft skills	
2005-07	Ferry-Porsche-Prize	Dr. Ing. hc F. Porsche AG
	for best grades in maths and physics in high school	