Edgar Klenske

PhD student

date of birth
1986-08-13

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focus
machine **learning**
predictive **control**

languages
german mother tongue
english fluency
swedish basics

programming
Matlab, C++

education

2012-11 →present — **PhD** in machine learning — Max-Planck-Institute for Intelligent Systems, Tübingen, Germany; Institute for Dynamical Systems and Control, ETH Zürich
Adaptive Autoguiding and Intelligent Control.
Supervisor: Melanie Zeilinger (ETH), advisor: Philipp Hennig (MPI).

2006-10 →2012-07 — **Diplom (diploma)** in engineering cybernetics — University of Stuttgart, Germany
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 →2005-06 — **Abitur (A-Levels)** — Theodor-Heuss-Gymnasium, Pforzheim
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 51st Annual Allerton Conference on Communication, Control, and Computing, 2013. →DOI

professional experience

2006-08 →2013-12 — **Owner** — Implexus Computerservice, Tiefenbronn, Germany
Side-business, computer service for small companies and consumers

2011-03 →2011-05 — **Internship** — ESG Elektroniksystem- und Logistik GmbH, Fürstenfeldbruck, Germany
Modeling traffic rule knowledge for autonomous driving systems

invited talks & visits

- Oxford Robotics Research Group, University of Oxford, 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

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)