

# CURRICULUM VITAE OF ERIK DAXBERGER

September 2022

## PERSONAL DETAILS

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LinkedIn: [link](#)  
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## EDUCATION

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<b>PhD in Machine Learning</b> <i>University of Cambridge, Cambridge, UK (~3 years), and Max Planck Institute for Intelligent Systems, Tübingen, Germany (~1 year)</i>	2019 - 2023
<b>MSc in Computer Science</b> (with distinction) – 5.77/6.00 (top 7.5%) <i>ETH Zürich, Zurich, Switzerland</i>	2017 - 2019
<b>BSc in Computer Science</b> – 1.00/1.00 (top 5%) <b>BSc in Media Informatics</b> – 1.05/1.00 (top 5%) <i>Ludwig-Maximilians-Universität, Munich, Germany spent a year at the National University of Singapore, Singapore</i>	2013 - 2017
<b>Abitur</b> (German matriculation exam) – 1.0/1.0 (top 2%)	2013

## RESEARCH EXPERIENCE

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<b>Apple</b> <i>Computer Vision Intern</i> Research on machine learning and computer vision.	September 2022 - January 2023 <i>Zurich, Switzerland</i>
<b>Empirical Inference Department, MPI for Intelligent Systems</b> <i>Doctoral Researcher</i> Research on probabilistic deep learning (Advisor: <a href="#">Bernhard Schölkopf</a> ).	November 2021 - now <i>Tübingen, Germany</i>
<b>Amazon AWS</b> <i>Applied Science Intern</i> Research on transfer learning & automated ML for transformers (Advisor: <a href="#">Matthias Seeger</a> ).	June 2021 - October 2021 <i>Berlin, Germany</i>
<b>Approximate Bayesian Inference Team, RIKEN Center for AIP</b> <i>Research Collaborator</i> Research on continual deep learning (Advisor: <a href="#">Emtiyaz Khan</a> ).	Aug 2020 - now <i>Tokyo, Japan (remotely)</i>
<b>Machine Learning Group, University of Cambridge</b> <i>Doctoral Researcher</i>	Feb 2019 - now <i>Cambridge, UK</i>

Research on probabilistic deep learning (Advisor: [José Miguel Hernández-Lobato](#)).

[Learning and Adaptive Systems Group, ETH Zürich](#)

Jan 2018 - Feb 2019

*Research Assistant*

*Zurich, Switzerland*

Research on discrete and mixed-variable Bayesian optimization (Advisor: [Andreas Krause](#)).

[Machine Intelligence Group, Siemens AG](#)

Apr 2017 - Aug 2017

*Research Intern*

*Munich, Germany*

Research on statistical relational learning (Advisor: [Volker Tresp](#)).

[Multi-Agent Planning, Learning, and Coordination Group,](#)

[National University of Singapore](#)

Aug 2015 - May 2016

*Research Assistant*

*Singapore*

Research on batch Bayesian optimization (Advisor: [Bryan Kian Hsiang Low](#)).

## PUBLICATIONS

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(\* denotes equal contribution)

### JOURNAL PAPERS

1. Yunpu Ma, Volker Tresp, **Erik A. Daxberger** (2018). “[Embedding Models for Episodic Knowledge Graphs](#)”. In *Journal of Web Semantics*.

### REFEREED CONFERENCE PROCEEDINGS

1. Javier Antorán, David Janz\*, James Urquhart Allingham\*, **Erik Daxberger**, Riccardo Barbano, Eric Nalisnick, José Miguel Hernández-Lobato (2022). “[Adapting the Linearised Laplace Model Evidence for Modern Deep Learning](#)”. In *Proceedings of the 39th International Conference on Machine Learning (ICML 2022)* [21.9% Acceptance Rate].
2. **Erik Daxberger\***, Agustinus Kristiadi\*, Alexander Immer\*, Runa Eschenhagen\*, Matthias Bauer, Philipp Hennig (2021). “[Laplace Redux – Effortless Bayesian Deep Learning](#)”. In *Proceedings of the 35th Conference on Neural Information Processing Systems (NeurIPS 2021)* [26.0% Acceptance Rate].
3. **Erik Daxberger**, Eric Nalisnick\*, James Urquhart Allingham\*, Javier Antorán\*, José Miguel Hernández-Lobato (2021). “[Bayesian Deep Learning via Subnetwork Inference](#)”. In *Proceedings of the 38th International Conference on Machine Learning (ICML 2021)* [21.5% Acceptance Rate].
4. Austin Tripp\*, **Erik Daxberger\***, José Miguel Hernández-Lobato (2020). “[Sample-Efficient Optimization in the Latent Space of Deep Generative Models via Weighted Retraining](#)”. In *Proceedings of the 34th Conference on Neural Information Processing Systems (NeurIPS 2020)* [20.1% Acceptance Rate].
5. **Erik Daxberger\***, Anastasia Makarova\*, Matteo Turchetta, Andreas Krause (2020). “[Mixed-Variable Bayesian Optimization](#)”. In *Proceedings of the 29th International Joint Conference on Artificial Intelligence (IJCAI 2020)* [12.6% Acceptance Rate].
6. **Erik A. Daxberger**, Bryan Kian Hsiang Low (2017). “[Distributed Batch Gaussian Process Optimization](#)”. In *Proceedings of the 34th International Conference on Machine Learning (ICML 2017)* [25.5% Acceptance Rate].

## WORKSHOP PAPERS

1. Javier Antorán, James Urquhart Allingham, David Janz, **Erik Daxberger**, Eric Nalisnick, José Miguel Hernández-Lobato (2022). “[Linearised Laplace Inference in Networks with Normalisation Layers and the Neural g-Prior](#)”. In *4th Symposium on Advances in Approximate Bayesian Inference (AABI 2022)*, **Contributed Talk** [6/31 Accepted Papers].
2. Runa Eschenhagen, **Erik Daxberger**, Philipp Hennig, Agustinus Kristiadi (2021). “[Mixtures of Laplace Approximations for Improved Post-Hoc Uncertainty in Deep Learning](#)”. In *6th Workshop on Bayesian Deep Learning at the 35th Conference on Neural Information Processing Systems (BDL @ NeurIPS 2021)*.
3. **Erik Daxberger**, Eric Nalisnick\*, James Urquhart Allingham\*, Javier Antorán\*, José Miguel Hernández-Lobato (2021). “[Expressive yet Tractable Bayesian Deep Learning via Subnetwork Inference](#)”. In *3rd Symposium on Advances in Approximate Bayesian Inference (AABI 2021)*, **Contributed Talk** [10/60 Accepted Papers].
4. Austin Tripp\*, **Erik Daxberger\***, José Miguel Hernández-Lobato (2020). “[Sample-Efficient Optimization in the Latent Space of Deep Generative Models via Weighted Retraining](#)”. In *Workshop on Real World Experiment Design and Active Learning at the 37th International Conference on Machine Learning (RealML @ ICML 2020)*.
5. **Erik Daxberger**, José Miguel Hernández-Lobato (2019). “[Bayesian Variational Autoencoders for Unsupervised Out-of-Distribution Detection](#)”. In *4th Workshop on Bayesian Deep Learning at the 33rd Conference on Neural Information Processing Systems (BDL @ NeurIPS 2019)*, **Spotlight** [15/100 Accepted Papers].

## HONOURS AND AWARDS

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- NeurIPS, ICML & ICLR Outstanding Reviewer Recognitions** 2020/2021  
Awarded for being among the top 10% of reviewers for NeurIPS 2020, among the top 33% of reviewers for ICML 2020, and among the top 12% of reviewers for ICLR 2021.
- College Senior Scholarship** 2019 & 2020  
Awarded by Fitzwilliam College, University of Cambridge, "to the highest performing PhD students [...] in recognition of excellent intellectual achievement".
- Graduate Travel and Research Funding Award** 2019  
Awarded by the Fitzwilliam Society Trust Research Fund for visiting NeurIPS 2019.
- Cambridge-Tübingen PhD Fellowship in Machine Learning** 2019 - 2022  
Full scholarship for a PhD in Machine Learning jointly at the University of Cambridge, Cambridge, UK, and the Max Planck Institute for Intelligent Systems, Tübingen, Germany.  
(With generous donations from Google DeepMind.)
- Qualcomm European Research Studentship and EPSRC Studentship** 2019 - 2022  
Full scholarship for a PhD in Engineering at the University of Cambridge.

**Honorary Cambridge European Scholarship** 2019 - 2022  
Awarded by the [Cambridge Commonwealth, European & International Trust](#).

**German National Merit Foundation Scholarship** 2018 - 2019  
(*Studienstiftung des deutschen Volkes*)  
Awarded to the top 0.5% of students nationwide.

**LMU Research Award for Excellent Students** 2017  
Awarded yearly to the 10 best research projects university-wide at LMU (Bachelor & Master).

**ICML Travel Award, DStatG Travel Award and Lehre@LMU Research Grant** 2017  
Awarded by the International Machine Learning Society, the German Statistical Society, and LMU, respectively, for visiting ICML 2017. Full coverage of travel, living and conference expenses.

**LMUexchange Scholarship and PROSA Scholarship** 2015 - 2016  
Awarded by LMU and the German Academic Exchange Service (DAAD). Full coverage of tuition fees and partial coverage of travel and living expenses for a student exchange at NUS.

## TEACHING EXPERIENCE

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**Inference** Lent Term 2020 & Lent Term 2021  
*Supervisor and Demonstrator*, Department of Engineering, University of Cambridge

**Machine Learning Project** Easter Term 2019  
*Demonstrator*, Department of Engineering, University of Cambridge

**Computer Science I for Electrical Engineers** Autumn Term 2017/18  
*Teaching Assistant*, Department of Computer Science, ETH Zurich

**Algorithms and Data Structures** Summer Term 2015  
*Teaching Assistant*, Department of Computer Science, LMU Munich

**Introduction to Programming** Winter Terms 2014/15 and 2016/17  
*Teaching Assistant*, Department of Computer Science, LMU Munich

## PROFESSIONAL SERVICE

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- *Reviewer*, Journal of Machine Learning Research (**JMLR**)
- *Reviewer*, Transactions on Machine Learning Research (**TMLR**)
- *Reviewer*, 36th Conference on Neural Information Processing Systems (**NeurIPS 2022**)
- *Reviewer*, 35th Conference on Neural Information Processing Systems (**NeurIPS 2021**)
- *Reviewer*, 38th International Conference on Machine Learning (**ICML 2021**)
- *Reviewer*, Ninth International Conference on Learning Representations (**ICLR 2021**)

- *Reviewer*, 24th International Conference on AI and Statistics (**AISTATS 2021**)
- *Reviewer*, 35th AAI Conference on Artificial Intelligence (**AAAI 2021**)
- *Reviewer*, 34th Conference on Neural Information Processing Systems (**NeurIPS 2020**)
- *Reviewer*, 37th International Conference on Machine Learning (**ICML 2020**)
- *Reviewer*, 23rd International Conference on AI and Statistics (**AISTATS 2020**)
- *Reviewer*, 34th AAI Conference on Artificial Intelligence (**AAAI 2020**)
- *Volunteer*, 34th Conference on Neural Information Processing Systems (**NeurIPS 2020**)
- *Volunteer*, 37th International Conference on Machine Learning (**ICML 2020**)
- *Volunteer*, Eighth International Conference on Learning Representations (**ICLR 2020**)
- *Volunteer*, 33rd Conference on Neural Information Processing Systems (**NeurIPS 2019**)
- *Volunteer*, [Machine Learning Summer School 2020](#), by the Max Planck Institute for Intelligent Systems, Tübingen, Germany (**MLSS 2020**)