

# Eric Nalisnick

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## Academic Employment

### Assistant Professor, Tenure Track

*Department of Computer Science*

Johns Hopkins University

March 2024 - present

### Assistant Professor, Tenure Track

*Amsterdam Machine Learning Lab*

University of Amsterdam

September 2020 - February 2024

### Postdoctoral Research Associate

*Computational and Biological Learning Laboratory*

University of Cambridge

September 2018 to September 2020

## Industrial Employment

### Research Scientist

Part time, one day per week (20% FTE)

Google DeepMind

February 2019 to January 2020

### Research Scientist Intern

Supervisor: Balaji Lakshminarayanan

Google DeepMind

Summer 2018

### Applied Scientist Intern

Supervisors: Vijai Mohan, Eiman Elnahrawy

Amazon

Fall 2016

### Research Intern

Supervisor: Hugo Larochelle

Twitter

Summer 2016

### Research Intern

Supervisors: Rich Caruana, Nick Craswell

Microsoft

Summer 2015

### Research Scientist Intern

Supervisors: Vijai Mohan, Rahul Bhagat

Amazon

Summer 2014

## Education

### Ph.D. Computer Science

2013 - 2018

#### University of California, Irvine

Dissertation: *On Priors for Bayesian Neural Networks*

Advisor: Padhraic Smyth

### M.S. Computer Science

2012 - 2013

#### Lehigh University

Thesis: *Automatic Methods for Tracking Sentiment Dynamics in Plays*

Advisor: Henry S. Baird

<b>B.S.</b> Computer Science & English Literature	2008 - 2012
<b>Lehigh University</b>	
Honors Thesis: <i>A Combinatorial Explanation for a Conjecture of Fomin &amp; Zelevinsky</i>	
Advisor: Mark Skandera	

## Honors and Awards

Best Paper (2 of 38 accepted papers), QUESTION Workshop at ICLR	2025
Oral presentation (8% of accepted papers), ECCV	2024
Outstanding Student Paper (as supervisor, 7 of 546 accepted papers), AISTATS	2024
Google Award for Inclusion Research	2024
Notable Paper (32 of 496 accepted papers), AISTATS	2023
Veni Laureate, Dutch Research Council	2021
Scholar, European Lab for Learning and Intelligent Systems (ELLIS) Society	2021
Top / Best Reviewer	NeurIPS 2017, ICML 2019, ICML 2020
Honorable Mention for Best Poster Award, SoCal ML Symposium	2017

## Academic Supervision

### CURRENT PHD STUDENTS / CANDIDATES

Chi Zhang (with Kimia Ghobadi)	Johns Hopkins University, 2025 -
Matthew Renze	Johns Hopkins University, 2025 -
Xi Wang	Johns Hopkins University, 2025 -
Andrea Wynn (with Anqi Liu)	Johns Hopkins University, 2024 -
Rajeev Verma (with Christian Naesseth, Volker Fischer)	University of Amsterdam, 2023 -
Alexander Timans (with Christian Naesseth, Kaspar Sakmann, Christoph-Nikolas Straehle)	University of Amsterdam, 2022 -
Metod Jazbec (with Dan Zhang)	University of Amsterdam, 2022 -
Mona Schirmer (with Dan Zhang)	University of Amsterdam, 2022 -
Dharmesh Tailor	University of Amsterdam, 2021 -
Saba Amiri (with Adam Belloum and Sander Kloos)	University of Amsterdam, 2021 -
Putra Manggala (with Holger Hoos)	University of Amsterdam, 2021 -

### FORMER PHD CANDIDATES

Urja Khurana (with Antske Fokkens)	Vrije University Amsterdam
Thesis: <i>From Concept to Impact: Toward More Robust Language Model Deployment</i>	2020 - 2025
First position after graduation: Postdoctoral Researcher, Delft University of Technology (TU Delft)	
James Allingham (external advisor via ELLIS)	University of Cambridge
Thesis: <i>Improving Deep Learning with Probabilistic Approaches</i>	2019 - 2024
First position after graduation: Research Scientist, Google DeepMind	
Mrinank Sharma (with Tom Rainforth and Yee Whye Teh)	University of Oxford
Thesis: <i>Uncertainty Estimation with Small and Large Models</i>	2020 - 2024
First position after graduation: Research Scientist, Anthropic	

#### MASTERS STUDENTS

Johns Hopkins University: Ziyao Mou (2025), Rishi More (2025), Han Liu (2024-2025), Yizirui Fang (2024-2025), Runzhou Chen (2024), Kunlun Li (2024)

University of Amsterdam: Jaap Stefels (2023), Thomas Jurriaans (2023), Mark Fokkema (2023), Arsen Sheverdin (2023), Nils Lehmann (2022), Shuai Wang (2022), Rajeev Verma (2022), Daniël Nobbe (2021).

#### VISITING STUDENTS

University of Amsterdam: Rutger Hendrix (2023), Javier Antorán (2022), Daniel Barrejón (2022).

## Teaching

<i>Machine Learning: Deep Learning</i> (Graduate)	Johns Hopkins University, 2025
<i>Human-in-the-Loop Machine Learning</i> (Graduate)	Johns Hopkins University, 2024
<i>Human-in-the-Loop Machine Learning</i> (Graduate)	University of Amsterdam, 2023
<i>Machine Learning I</i> (Graduate)	University of Amsterdam, 2023
<i>Introduction to Machine Learning</i> (Undergraduate)	University of Amsterdam, 2020 - 2022
<i>Bayesian Deep Learning Module, Deep Learning II</i> (Graduate)	University of Amsterdam, 2022 - 2023
<i>Project in AI</i> (Graduate)	University of Amsterdam, 2021

## Professional Service

#### ORGANIZATION / LEADERSHIP ROLES

<i>Advisory Committee on Data Science and AI</i> , American Statistical Association	2024 - present
<i>Tractable Probabilistic Modeling</i> , UAI Workshop	2022 - 2023
<i>Anomaly Detection for Scientific Discovery</i> , Virtual Seminar Series	2021 - 2022
<i>Bayesian Deep Learning</i> , NeurIPS Workshop	2019, 2021
<i>Bayesian Deep Learning</i> , ELLIS Workshop / NeurIPS Meetup	2020

**AREA CHAIR / SENIOR PROGRAM COMMITTEE**

Neural Information Processing Systems (NeurIPS)	2021 - present
International Conference on Machine Learning (ICML)	2021 - present
Uncertainty in Artificial Intelligence (UAI)	2021 - present
Artificial Intelligence and Statistics (AISTATS)	2022
International Conference on Learning Representations (ICLR)	2021

**JOURNAL REVIEWING**

American Statistical Association (JASA)	2020 - present
Machine Learning Research (JMLR)	2018 - present
Journal of Econometrics	2022
Advances in Statistical Analysis	2020
Neural Processing Letters	2019

**CONFERENCE REVIEWING**

Conference on Computer Vision and Pattern Recognition (CVPR)	2024
Neural Information Processing Systems (NeurIPS)	2016 - 2021
International Conference on Learning Representations (ICLR)	2018 - 2024
International Conference on Machine Learning (ICML)	2018 - 2021
Artificial Intelligence and Statistics (AISTATS)	2019 - 2021
Uncertainty in Artificial Intelligence (UAI)	2019 - 2020
Hybrid Human-Artificial Intelligence (HHAI)	2022
Association for the Advancement of Artificial Intelligence (AAAI)	2020 - 2021
International Joint Conference on Artificial Intelligence (IJCAI)	2019

**GRANT REVIEWING**

European Research Council	2025
US Army Research Office	2024
Johns Hopkins Discovery Awards	2024
U.S.-Israel Binational Science Foundation	2023

**Institutional Service**

Computer Science curriculum committee, Johns Hopkins University	2024 - present
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Data Science & AI faculty hiring committee, Johns Hopkins University	2025 - 2026
Cognitive Science faculty hiring committee, Johns Hopkins University	2024
AI education program committee, University of Amsterdam	2021 - 2024
Faculty hiring committee, Machine Learning Lab, University of Amsterdam	2021

## Doctoral Committees

### DISSERTATION DEFENSE EXAMINATIONS:

Teodora Pandeva, University of Amsterdam <i>Machine Learning for Multi-Source Data Integration</i>	2025
Federico Bergamin, Technical University of Denmark <i>Advances in Deep Generative Models, Approximate Inference, and their Applications</i>	2024
Jakob Havnæs, Technical University of Denmark <i>Uncertainty and the Medical Interview</i>	2024
Bertrand Charpentier, Technical University of Munich <i>Uncertainty Estimation for Independent and Non-Independent Data</i>	2024
Kamil Deja, Warsaw University of Technology <i>Data Representations in Generative Modelling</i>	2023
ChangYong Oh, University of Amsterdam <i>Bayesian Optimization on Non-Conventional Search Spaces</i>	2023
Emiel Hoogeboom, University of Amsterdam <i>Normalizing Flows and Diffusion Models for Discrete and Geometric Data</i>	2023
Shi Hu, University of Amsterdam <i>Uncertainty, Robustness and Safety in Artificial Intelligence</i>	2022

DOCTORAL CANDIDACY EXAMINATIONS (Not as Advisor): Leonard Bereska (Univ. of Amsterdam, 2023), Ilze Amanda Auzina (Univ. of Amsterdam, 2023), Zhengping Jiang (JHU, 2025), Gina Wong (JHU, 2025), Aayush Mishra (JHU, 2025), Richard Williams (UCLA, 2025)

## Publications

\* Denotes equal contribution

### JOURNAL ARTICLES

1. M. Schirmer, D. Zhang, and **E. Nalisnick**. Temporal Test-Time Adaptation with State-Space Models. In *Transactions on Machine Learning Research* (TMLR), 2025. *Journal-to-Conference (J2C) Certification (~10% of accepted papers)*.<sup>1</sup>

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<sup>1</sup>Distinction allows the paper to be presented at NeurIPS, ICML, or ICLR.

2. R. Williams, **E. Nalisnick**, and A. Holbrook. Scalable Generative Modeling of Weighted Graphs. In *Transactions on Machine Learning Research* (TMLR), 2025.
3. L. Manduchi, K. Pandey, C. Meister, R. Bamler, R. Cotterell, S. Däubener, S. Fellenz, A. Fischer, T. Gärtner, M. Kirchler, M. Kloft, Y. Li, C. Lippert, G. de Melo, **E. Nalisnick**, B. Ommer, R. Ranganath, M. Rudolph, K. Ullrich, G. Van den Broeck, J. E. Vogt, Y. Wang, F. Wenzel, F. Wood, S. Mandt, and V. Fortuin. On the Challenges and Opportunities in Generative AI. In *Transactions on Machine Learning Research* (TMLR), 2025.
4. N. Lehmann, N. M. Gottschling, J. Gawlikowski, A. Stewart, S. Depeweg, and **E. Nalisnick**. Lightning UQ Box: Uncertainty Quantification for Neural Networks. *Journal of Machine Learning Research* (JMLR), Machine Learning Open Source Software (MLOSS) track, 2025.
5. S. Amiri, **E. Nalisnick**, A. Belloum, S. Klous, L. Gommans. Practical Modelling of Mixed-Tailed Data with Normalizing Flows. In *Transactions on Machine Learning Research* (TMLR), 2024.
6. **E. Nalisnick**, P. Smyth, and D. Tran. A Brief Tour of Deep Learning from a Statistical Perspective. *Annual Review of Statistics and Its Application*, 2023.
7. G. Papamakarios\*, **E. Nalisnick\***, D. J. Rezende, S. Mohamed, and B. Lakshminarayanan. Normalizing Flows for Probabilistic Modeling and Inference. *Journal of Machine Learning Research* (JMLR), 2021.

#### CONFERENCE ARTICLES

8. M. Schirmer\*, M. Jazbec\*, C. A. Naesseth, and **E. Nalisnick**. Monitoring Risks in Test-Time Adaptation. In *Advances in Neural Information Processing Systems* (NeurIPS), 2025.
9. A. Carbo and **E. Nalisnick**. Improving Handshape Representations for Sign Language Processing: A Graph Neural Network Approach. In *Proceedings of Empirical Methods in Natural Language Processing* (EMNLP), Main Conference track, 2025.
10. A. Timans\*, R. Verma\*, **E. Nalisnick**, and C. A. Naesseth. On Continuous Monitoring of Risk Violations under Unknown Shift. In *Proceedings of the 41st Conference on Uncertainty in Artificial Intelligence* (UAI), 2025.
11. M. Jazbec, E. Wong-Toi, G. Xia, D. Zhang, **E. Nalisnick**, and S. Mandt. Generative Uncertainty in Diffusion Models. In *Proceedings of the 41st Conference on Uncertainty in Artificial Intelligence* (UAI), 2025.
12. R. Verma, V. Fischer, and **E. Nalisnick**. On Calibration in Multi-Distribution Learning. In *Proceedings of the ACM Conference on Fairness, Accountability, and Transparency* (FAccT), 2025.
13. D. Tailor, A. Correia, **E. Nalisnick**, and C. Louizos. Approximating Full Conformal Prediction for Neural Network Regression with Gauss-Newton Influence. In *Proceedings of the 13th International Conference on Learning Representations* (ICLR), 2025.
14. O. Rønning, **E. Nalisnick**, C. Ley, P. Smyth, and T. Hamelryck. ELBOing Stein: Variational Bayes with Stein Mixture Inference. In *Proceedings of the 13th International Conference on Learning Representations* (ICLR), 2025.

15. A. Timans, C.-N. Straehle, K. Sakmann, C. A. Naeseth, and **E. Nalisnick**. Max-Rank: Efficient Multiple Testing for Conformal Prediction. In *Proceedings of the 28th International Conference on Artificial Intelligence and Statistics* (AISTATS), 2025.
16. U. Khurana, **E. Nalisnick**, and A. Fokkens. DefVerify: Do Hate Speech Models Reflect Their Dataset's Definition? In *Proceedings of the 31st International Conference on Computational Linguistics* (COLING), 2025.
17. M. Jazbec\*, A. Timans\*, T. H. Veljković, K. Sakmann, D. Zhang, C. A. Naesseth, and **E. Nalisnick**. Fast yet Safe: Early-Exiting with Risk Control. In *Advances in Neural Information Processing Systems* (NeurIPS), 2024.
18. J. U. Allingham, B. K. Mloedeniec, S. Padhy, J. Antoran, D. Krueger, R. E. Turner, **E. Nalisnick**, J. M. Hernández-Lobato. A Generative Model of Symmetry Transformations. In *Advances in Neural Information Processing Systems* (NeurIPS), 2024.
19. U. Khurana, **E. Nalisnick**, A. Fokkens, and S. Swayamdipta. Crowd-Calibrator: Can Annotator Disagreement Inform Calibration in Subjective Tasks? In *Proceedings of the 1st Conference on Language Modeling* (COLM), 2024.
20. A. Timans, C.-N. Straehle, K. Sakmann, and **E. Nalisnick**. Adaptive Bounding Box Uncertainties via Two-Step Conformal Prediction. In *Proceedings of the 18th European Conference on Computer Vision* (ECCV), 2024. *Oral presentation (8% of accepted papers)*.
21. M. Jazbec, P. Forré, S. Mandt, D. Zhang, and **E. Nalisnick**. Early-Exit Neural Networks with Nested Prediction Sets. In *Proceedings of the 40th Conference on Uncertainty in Artificial Intelligence* (UAI), 2024.
22. D. Tailor, A. Patra, R. Verma, P. Manggala, and **E. Nalisnick**. Learning to Defer to a Population: A Meta-Learning Approach. In *Proceedings of the 27th International Conference on Artificial Intelligence and Statistics* (AISTATS), 2024. *Oral presentation, outstanding student paper (1% of accepted papers)*.
23. M. Jazbec, J. U. Allingham, D. Zhang, and **E. Nalisnick**. Towards Anytime Classification in Early-Exit Architectures by Enforcing Conditional Monotonicity. In *Advances in Neural Information Processing Systems* (NeurIPS), 2023.
24. D. Tailor, M. E. Khan, and **E. Nalisnick**. Exploiting Inferential Structure in Neural Processes. In *Proceedings of the 39th Conference on Uncertainty in Artificial Intelligence* (UAI), 2023.
25. J. Antoran\*, S. Padhy\*, R. Barbano, **E. Nalisnick**, D. Janz, and J. M. Hernández-Lobato. Sampling-Based Inference for Large Linear Models, with Application to Linearised Laplace. In *Proceedings of the 11th International Conference on Learning Representations* (ICLR), 2023.
26. R. Verma\*, D. Barrejón\*, and **E. Nalisnick**. Learning to Defer to Multiple Experts: Consistent Surrogate Losses, Confidence Calibration, and Conformal Ensembles. In *Proceedings of the 26th International Conference on Artificial Intelligence and Statistics* (AISTATS), 2023.
27. M. Sharma, S. Farquhar, **E. Nalisnick**, and T. Rainforth. Do Bayesian Neural Networks Need To Be Fully Stochastic? In *Proceedings of the 26th International Conference on Artificial Intelligence and Statistics* (AISTATS), 2023. *'Notable' oral presentation (6% of accepted papers)*.

28. R. Verma and **E. Nalisnick**. Calibrated Learning to Defer with One-vs-All Classifiers. In *Proceedings of the 39th International Conference on Machine Learning* (ICML), 2022.
29. J. Antoran, D. Janz, J. U. Allingham, E. Daxberger, R. Barbano, **E. Nalisnick**, and J. M. Hernández-Lobato. Adapting the Linearised Laplace Model Evidence for Modern Deep Learning. In *Proceedings of the 39th International Conference on Machine Learning* (ICML), 2022.
30. E. Daxberger, **E. Nalisnick\***, J. U. Allingham\*, J. Antoran\*, and J. M. Hernández-Lobato. Expressive yet Tractable Bayesian Deep Learning via Subnetwork Inference. In *Proceedings of the 38th International Conference on Machine Learning* (ICML), 2021.
31. **E. Nalisnick**, J. Gordon, and J. M. Hernández-Lobato. Predictive Complexity Priors. In *Proceedings of the 24th International Conference on Artificial Intelligence and Statistics* (AISTATS), 2021.
32. R. Pinsler, J. Gordon, **E. Nalisnick**, and J. M. Hernández-Lobato. Bayesian Batch Active Learning as Sparse Subset Approximation. In *Advances in Neural Information Processing Systems* (NeurIPS), 2019.
33. **E. Nalisnick**, J. M. Hernández-Lobato, and P. Smyth. Dropout as a Structured Shrinkage Prior. In *Proceedings of the 36th International Conference on Machine Learning* (ICML), 2019.
34. **E. Nalisnick\***, A. Matsukawa\*, Y. W. Teh, D. Gorur, and B. Lakshminarayanan. Hybrid Models with Deep and Invertible Features. In *Proceedings of the 36th International Conference on Machine Learning* (ICML), 2019.
35. **E. Nalisnick**, A. Matsukawa, Y. W. Teh, D. Gorur, and B. Lakshminarayanan. Do Deep Generative Models Know What They Don't Know? In *Proceedings of the 7th International Conference on Learning Representations* (ICLR), 2019.
36. D. Ji, **E. Nalisnick**, Y. Qian, R. Scheuermann, and P. Smyth. Bayesian Trees for Automated Cytometry Data Analysis. In *Proceedings of Machine Learning for Healthcare* (MLHC), 2018.
37. **E. Nalisnick** and P. Smyth. Learning Priors for Invariance. In *Proceedings of the 21st International Conference on Artificial Intelligence and Statistics* (AISTATS), 2018.
38. **E. Nalisnick** and P. Smyth. Learning Approximately Objective Priors. In *Proceedings of the 33rd Conference on Uncertainty in Artificial Intelligence* (UAI), 2017.
39. **E. Nalisnick** and P. Smyth. Stick-Breaking Variational Autoencoders. In *Proceedings of the 5th International Conference on Learning Representations* (ICLR), 2017.
40. **E. Nalisnick**, B. Mitra, N. Craswell, and R. Caruana. Improving Document Ranking with Dual Word Embeddings. In *Proceedings of the 25th World Wide Web Conference* (WWW), 2016.
41. **E. Nalisnick** and H. Baird. Character-to-Character Sentiment Analysis in Shakespeare's Plays. In *Proceedings of the 51st Annual Meeting of the Association for Computational Linguistics* (ACL), 2013.
42. **E. Nalisnick** and H. Baird. Extracting Sentiment Networks from Shakespeare's Plays. In *Proceedings of the 12th International Conference on Document Analysis and Recognition* (ICDAR), 2013.

43. R. Verma, R. Derr, C. A. Naesseth, V. Fischer, and **E. Nalisnick**. So What are Good Imprecise Forecasts? *Epistemic Intelligence in Machine Learning*, EurIPS 2025.
44. A. Suresh\*, A. Zhang\*, R. More\*, X. Wang, W. Jurayj, B. Van Durme, **E. Nalisnick**, and D. Khashabi. Compute When Worth It: Risk Control for Reasoning on a Compute Budget. *Efficient Reasoning*, NeurIPS 2025.
45. R. Verma, V. Fischer, C. A. Naesseth, and **E. Nalisnick**. Conformal Prediction in Multi-Distribution Learning. *14th Symposium on Conformal and Probabilistic Prediction* (COPA), 2025.
46. M. Schirmer\*, M. Jazbec\*, C. A. Naesseth, and **E. Nalisnick**. Monitoring Risks in Test-Time Adaptation. *Test-Time Adaptation: Putting Updates to the Test!*, ICML 2025. *Oral presentation*.
47. M. Jazbec, E. Wong-Toi, G. Xia, D. Zhang, **E. Nalisnick**, and S. Mandt. Generative Uncertainty in Diffusion Models. *Quantify Uncertainty and Hallucination in Foundation Models*, ICLR 2025. *Best paper award (5% of accepted papers)*.
48. X. Wang and **E. Nalisnick**. Vision-Language Models can Implicitly Quantify Aleatoric Uncertainty. *Quantify Uncertainty and Hallucination in Foundation Models*, ICLR 2025.
49. Y. Fang and **E. Nalisnick**. Learning to Defer with an Uncertain Rejector via Conformal Prediction. *Bayesian Decision-Making and Uncertainty*, NeurIPS 2024.
50. R. Williams, **E. Nalisnick**, and A. Holbrook. Autoregressive Generative Modeling of Weighted Graphs. *Learning on Graphs Conference*, Extended Abstract Track, 2024.
51. R. Verma, V. Fischer, and **E. Nalisnick**. On the Calibration of Conditional-Value-at-Risk. *Next Generation of AI Safety*, ICML 2024.
52. N. Lehmann, N. M. Gottschling, S. Depeweg, and **E. Nalisnick**. Uncertainty Aware Tropical Cyclone Wind Speed Estimation from Satellite Data. *Machine Learning for Remote Sensing*, ICLR 2024. *Oral presentation*.
53. M. Schirmer, D. Zhang, and **E. Nalisnick**. Beyond Top-Class Agreement: Using Divergences to Forecast Performance under Distribution Shift. *Distribution Shifts*, NeurIPS 2023.
54. N. Lehmann, N. M. Gottschling, S. Depeweg, and **E. Nalisnick**. A Comparison of Uncertainty Quantification Methods for Earth Observation Image Regression Data. *Uncertainty Quantification for Computer Vision*, ICCV 2023.
55. S. Wang and **E. Nalisnick**. Active Learning for Multilingual Fingerspelling Corpora. *Adaptive Experimental Design and Active Learning in the Real World*, ICML 2022.
56. J. U. Allingham and **E. Nalisnick**. A Product of Experts Approach to Early-Exit Ensembles. *Dynamic Neural Networks*, ICML 2022.
57. P. Manggala, H. Hoos, and **E. Nalisnick**. Bayesian Weak Supervision via an Optimal Transport Approach. *Human-Machine Collaboration and Teaming*, ICML 2022.
58. U. Khurana, I. Vermeulen, **E. Nalisnick**, M. van Noorloos, and A. Fokkens. Hate Speech Criteria: A Modular Approach to Task-Specific Hate Speech Definitions. *Online Abuse and Harms*, NAACL 2022.

59. S. Amiri, A. Belloum, **E. Nalisnick**, S. Klous, and L. Gommans. On the Impact of Non-IID Data on the Performance and Fairness of Differentially Private Federated Learning. *Dependable and Secure Machine Learning*, DSN 2022.
60. U. Khurana, **E. Nalisnick**, and A. Fokkens. How Emotionally Stable is ALBERT? Testing Robustness with Stochastic Weight Averaging on a Sentiment Analysis Task. *Evaluation and Comparison of NLP Systems*, EMNLP 2021.
61. P. Manggala, H. Hoos, and **E. Nalisnick**. Bayesian Regression from Multiple Sources of Weak Supervision. *Machine Learning for Data*, ICML 2021.
62. Y. Zhang and **E. Nalisnick**. On the Inconsistency of Bayesian Inference for Misspecified Neural Networks. *Symposium on Advances in Approximate Bayesian Inference*, 2021.
63. **E. Nalisnick**, A. Matsukawa, Y. W. Teh, and B. Lakshminarayanan. Detecting Out-of-Distribution Inputs to Deep Generative Models Using Typicality. *Bayesian Deep Learning*, NeurIPS 2019.
64. **E. Nalisnick** and J. M. Hernández-Lobato. Automatic Depth Determination for Bayesian ResNets. *Bayesian Deep Learning*, NeurIPS 2018.
65. O. Rybakov, V. Mohan, A. Misra, S. LeGrand, R. Joseph, K. Chung, S. Singh, Q. You, **E. Nalisnick**, L. Dirac, and R. Luo. The Effectiveness of a Two-Layer Neural Network for Recommendations. Workshop Track, ICLR 2018.
66. D. Ji, **E. Nalisnick**, and P. Smyth. Mondrian Processes for Flow Cytometry Analysis. *Machine Learning for Health*, NeurIPS 2017.
67. **E. Nalisnick** and P. Smyth. Variational Inference with Stein Mixtures. *Advances in Approximate Bayesian Inference*, NIPS 2017.
68. **E. Nalisnick** and P. Smyth. The Amortized Bootstrap. *Implicit Models*, ICML 2017. *Oral presentation*.
69. **E. Nalisnick**, L. Hertel, and P. Smyth. Approximate Inference for Deep Latent Gaussian Mixtures. *Bayesian Deep Learning*, NeurIPS 2016.
70. **E. Nalisnick** and P. Smyth. Nonparametric Deep Generative Models with Stick-Breaking Priors. *Data-Efficient Machine Learning*, ICML 2016. *Oral presentation*.
71. J. Park, M. Blume-Kohout, R. Krestel, **E. Nalisnick**, and P. Smyth. Analyzing NIH Funding Patterns over Time with Statistical Text Analysis. *Scholarly Big Data*, AAAI 2016.

#### PATENTS

1. E. M. H. Elnahrawy, V. Mohan, and **E. Nalisnick**. Generation and Use of Model Parameters in Cold-Start Scenarios. U.S. Patent Number 10,726,334. 28 July 2020.

## Invited Talks

### INTERNATIONAL VENUES, LARGE NATIONAL VENUES, KEYNOTES

1. Learning to Defer to Multiple Experts: From individuals to populations and crowds  
Invited Session on *The Price of Insight: Cost-aware and human-guided learning* 2025

- INTL. CONF. ON COMPUTATIONAL AND METHODOLOGICAL STATISTICS (CMStatistics) London, UK
2. Statistical Methods for AI Safety with Industrial Applications 2025  
Invited Session on *Harnessing Multi-Sector Collaboration in Statistics and Artificial Intelligence*  
JOINT STATISTICAL MEETINGS (JSM) Nashville, USA
  3. Anomalous Anomalies: Monitoring and Adapting Anomaly Detectors 2025  
Workshop on *Anomaly Detection in Scientific Domains*  
THE AAAI CONFERENCE ON ARTIFICIAL INTELLIGENCE Philadelphia, USA
  4. Bayes Plays the Lottery: A Study of Partially Stochastic Neural Networks 2024  
Dagstuhl Seminar on *RETHINKING BAYES IN THE AGE OF MODERN AI* Wadern, Germany
  5. The Boons of Being Less Bayesian: a Study of Partially Stochastic Neural Networks 2024  
Invited Session on *Advances in Inference and Theory for Bayesian Neural Networks*  
JOINT STATISTICAL MEETINGS (JSM) Portland, USA
  6. Detecting Distribution Shift with Deep Generative Models 2023  
DUTCH SOCIETY OF PATTERN RECOGNITION AND IMAGE PROCESSING Amsterdam, Netherlands
  7. Towards Anytime Uncertainty Estimation in Early-Exit Neural Networks 2023  
Workshop on *Uncertainty Quantification for Computer Vision*  
INTERNATIONAL CONFERENCE ON COMPUTER VISION (ICCV) Paris, France
  8. Learning to Defer to One, Multiple, or a Population of Expert(s) 2023  
ELLIS WORKSHOP ON ROBUST MACHINE LEARNING (ROBUSTML) Helsinki, Finland
  9. Bayesian Learning & Uncertainty Quantification 2023  
MEDITERRANEAN MACHINE LEARNING SUMMER SCHOOL Thessaloniki, Greece
  10. Towards Anytime Computation in Deep Architectures 2023  
Dagstuhl Seminar on *DEEP GENERATIVE MODELS* Wadern, Germany
  11. Towards Informative Priors for Bayesian Deep Learning 2022  
Dagstuhl Seminar on *TRACTABLE PROBABILISTIC MODELS* Wadern, Germany
  12. Predictive Complexity Priors 2021  
GENU WORKSHOP: GEN. MODELS AND UNCERTAINTY QUANTIFICATION Copenhagen, Denmark
  13. Detecting Distribution Shift with Deep Generative Models 2020  
Workshop on *Invertible Neural Nets, Normalizing Flows, and Explicit Likelihood Models* (INNF+)  
INTERNATIONAL CONFERENCE ON MACHINE LEARNING (ICML) Virtual
  14. Normalizing Flows for Tractable Probabilistic Modeling and Inference 2019  
T-PRIME, NEURIPS SOCIAL Vancouver, Canada

## DEPARTMENT SEMINARS, COMPANIES, LOCAL EVENTS

1. Learning to Defer to One, Multiple, or a Population of Expert(s) 2023 - 2025  
AMAZON, JOHNS HOPKINS APPLIED PHYSICS LABORATORY, VANDERBILT MACHINE LEARNING SEMINAR
2. Efficient Collection of Sign Language Data 2024  
GALLAUDET UNIVERSITY

3. Towards a Statistical Foundation for Human-AI Collaboration 2023  
UNIV. OF TÜBINGEN / BOSCH AI, OREGON STATE UNIV.: COMPUTER SCIENCE, JOHNS HOPKINS UNIV.: COMPUTER SCIENCE, GEORGE WASHINGTON UNIV.: COMPUTER SCIENCE
4. On the Calibration of Learning-to-Defer Systems 2022  
UNIV. OF CALIFORNIA, RIVERSIDE: COMPUTER SCIENCE, UNIV. OF MANCHESTER: STATISTICS
5. Predictive Complexity Priors 2021  
UNIV. OF EDINBURGH: ANC SEMINAR, IMPERIAL COLLEGE: STATISTICS, ALAN TURING INSTITUTE
6. Detecting Distribution Shift with Deep Generative Models 2020  
SYDNEY MACHINE LEARNING MEETUP
7. Building and Critiquing Models for Probabilistic Deep Learning 2020  
UNIVERSITY COLLEGE LONDON: GATSBY UNIT, CARNEGIE MELLON UNIV.: STATISTICS, UNIV. OF NORTH CAROLINA: COMPUTER SCIENCE, UNIV. OF AMSTERDAM: INFORMATICS
8. Deep Learning & Statistics: Bridging the Gap with Prob. Structure 2020  
UNIV. OF CALIFORNIA, SANTA BARBARA: STATISTICS
9. Deep Learning Under Covariate Shift 2019  
UNIV. OF CALIFORNIA, IRVINE: AI/ML SEMINAR
10. Deep Learning: A Synthesis from Probabilistic Foundations 2018 - 2019  
RAND CORPORATION: STATISTICS, UNIV. OF CALIFORNIA, IRVINE: STATISTICS
11. Evaluating Deep Generative Models on Out-of-Distribution Inputs 2019  
UNIV. OF OXFORD: STATISTICS, CAMAIML (MSR CAMBRIDGE), UNIV. OF CAMBRIDGE: LTL SEMINAR
12. Structured Shrinkage Priors for Neural Networks 2018  
IMPERIAL COLLEGE: STATISTICS
13. Approximate Inference for Frequentist Uncertainty Estimation 2017  
SOCAL ML SYMPOSIUM
14. Deep Generative Models with Stick-Breaking Priors 2017  
UNIV. OF CALIFORNIA, IRVINE: AI/ML SEMINAR, OPENAI

#### GENERAL AUDIENCE, OUTREACH

1. AI for Sign Language Technologies, MARYLAND SCHOOL FOR THE DEAF 2025
2. Discussant for the ASA webinar *Statistical Foundations to Survive the AI Apocalypse* 2025
3. Discussed Human-AI Collaboration on the *Faculty Factory Podcast* 2024
4. AI Risks: From Today to Doomsday – An Academic Panel Discussion 2023  
AMSTERDAM ELLIS UNIT