

Daolang Huang

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Summary

As a dedicated second-year PhD student at Aalto University, my research primarily focuses on amortized inference, leveraging neural networks to expedite various Bayesian inference tasks. With a strong interest in Bayesian experimental design, Bayesian optimization, simulation-based inference, and meta-learning, I am passionate about exploring and developing innovative methods to enhance model efficiency in complex inferential processes.

Education

- 2022.07 – present 📖 **PhD, Doctoral programme in Science**
Aalto University, Finland
Supervisors: Prof. Samuel Kaski (*Aalto University* and *The University of Manchester*),
Prof. Luigi Acerbi (*University of Helsinki*)
Fully funded by Finnish Center for Artificial Intelligence (FCAI)
- 2020.09 – 2022.05 📖 **MSc, Machine Learning, Data Science and Artificial Intelligence**
Aalto University, Finland
GPA: 4.68/5 (Major 5/5)
Master thesis: Bayesian optimization augmented with actively elicited expert knowledge
- 2016.09 – 2020.07 📖 **BSc, Computer Science and Technology.,**
Jinan University, China
GPA: 87/100 (Major 89/100)
Bachelor thesis: Multi-Modal Fusion for Fake News Detection

Publications

- 1 **D. Huang**, A. Bharti, A. Souza, L. Acerbi, and S. Kaski, “Learning robust statistics for simulation-based inference under model misspecification,” in *Advances in Neural Information Processing Systems (NeurIPS)*, Dec. 2023.
- 2 **D. Huang**, M. Haussmann, U. Remes, *et al.*, “Practical equivariances via relational conditional neural processes,” in *Advances in Neural Information Processing Systems (NeurIPS)*, Dec. 2023.
- 3 **D. Huang**, L. Filstroff, P. Mikkola, R. Zheng, M. Todorovic, and S. Kaski, “Augmenting bayesian optimization with preference-based expert feedback,” in *ICML 2023 Workshop The Many Facets of Preference-Based Learning*, Jul. 2023.

- 4 **D. Huang**, L. Filstroff, P. Mikkola, R. Zheng, and S. Kaski, "Bayesian optimization augmented with actively elicited expert knowledge," *arXiv preprint arXiv:2208.08742*, 2022.
- 5 **D. Huang** and R. F. Perez, "Sseldnet: A fully end-to-end sample-level framework for sound event localization and detection," *Detection and Classification of Acoustic Scenes and Events (DCASE)*, 2021.
- 6 R. Zheng, Y. Zhang, **D. Huang**, and Q. Chen, "Sequential convolution and runge-kutta residual architecture for image compressed sensing," in *European Conference on Computer Vision (ECCV)*, Springer, 2020, pp. 232–248.






Experience

2022.07 – present	Doctoral Researcher <i>Aalto University</i> Position-based doctoral researcher in Probabilistic Machine Learning Group (Aalto University) and Machine and Human Intelligence group (University of Helsinki) Topic: Amortized inference for decision-making aware Bayesian experimental design
2021.10 – 2022.05	Thesis Worker <i>Aalto University</i> Master thesis worker in Probabilistic Machine Learning Group (PML), supervised by Prof. Samuel Kaski Topic: Human-in-the-Loop Bayesian Optimization
2021.6 – 2021.08	Summer Intern <i>Aalto University</i> Summer intern in Probabilistic Machine Learning Group (PML), supervised by Prof. Samuel Kaski and Dr. Louis Filstroff Topic: Targeted-aware Bayesian active learning
2017.2 – 2020.08	Startup Founder & Manager <i>EDM Heaven</i> Specialized in customized music services for musicians and producers, including mixing and mastering, catering to diverse client requirements and genres
2019.6 – 2019.08	Summer Intern <i>Neuedu Education Technology Co., Ltd.</i> Summer intern, Python developer








Skills

Languages	English (C1), Mandarin (native), Finnish (basic)
Programming	Python , Java , C , R
Data Science	Pytorch , sklearn , scipy , numpy , pandas , ...







Teaching

- Spring 2024  **Teaching Assistant**, Deep learning, *Aalto University*
- Autumn 2023  **Tutor**, Seminar in computer science, *Aalto University*
- Spring 2023  **Teaching Assistant**, Deep learning, *Aalto University*
- Spring 2022  **Teaching Assistant**, Deep learning, *Aalto University*
- Spring 2020  **Teaching Assistant**, C Programming, *Jinan University-University of Birmingham Joint Institute*

Events

- 2023.12  **Poster**, Neurips 2023
-  **Poster**, ELLIS Unit Helsinki pre-NeurIPS Fest 2023
- 2023.11  **Talk**, Mathematical perspective on machine learning seminar, University of Helsinki
-  **Talk**, FCAI AI day
- 2023.09  **Poster**, ELLIS RobustML Workshop
- 2023.08  **Poster and Talk**, ELLIS Doctoral Symposium 2023
- 2023.07  **Poster**, ICML 2023 workshop The Many Facets of Preference-based Learning

Awards and Achievements

- 2021  Dean's List Scholarships, *Aalto University*
-  International Talent Program, *Aalto University*
- 2020  Aalto University Scholarship (100% tuition waiver), *Aalto University*
- 2019  Second-class Scholarship for Outstanding Students, *Jinan University*
- 2018  First-class Scholarship for Outstanding Students, *Jinan University*
- 2017  Third-class Scholarship for Outstanding Students, *Jinan University*