# **Pedram Bakhtiarifard**

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"The only difference is they tried. So can you." - my mom

#### **Education**

### University of Copenhagen, Copenhagen, Denmark

PhD in Machine Learning

2025 – Present

Research focus: algorithmic complexity, continual learning, and resource-efficient ML.

University of Copenhagen, Copenhagen, Denmark

MSc in Computer Science

2022 - 2025

ETH Zürich, Zürich, Switzerland

MSc in Computer Science (exchange program)

2024

University of Copenhagen, Copenhagen, Denmark

BSc in Computer Science

2019 - 2022

University of Copenhagen, Faculty of Science, Copenhagen, Denmark

Pedagogical Course for Teaching Assistants

2021

Rungsted Gymnasium, Rungsted, Denmark

High School Diploma

2014 - 2017

### **Work Experience**

#### University of Copenhagen, Copenhagen, Denmark

Research Assistant, Student

Aug 2022 – June 2025

- Conducted research as part of SAINTS Lab and EU Horizon projects enRichMyData and DataPact.
- Led development and maintenance of CarbonTracker for energy-efficient machine learning.

#### Danske Bank, Copenhagen, Denmark

Software Engineer

Sep 2021 – Jul 2022

- Co-led end-to-end design and implementation of their mortgage refinancing solution.
- Developed back-end systems in .NET and managed cloud infrastructure.

#### University of Copenhagen, Copenhagen, Denmark

Teaching Assistant

Sep 2020 - Aug 2021

- Facilitated weekly exercises, evaluated assignments, and provided targeted feedback.
- Courses: Programming and Problem Solving and Software Development.

#### Capture One, Frederiksberg, Denmark

Web Assistant

May 2020 - Jul 2020

- Supported back-end migration and managed CMS for product launches.
- Coordinated with teams to implement web features improving user experience.

#### Ambition (formerly Artefact), Copenhagen, Denmark

Student Assistant

Nov 2019 - Apr 2020

- Managed CMS for Danske Spil campaigns, ensuring timely and consistent updates.
- Handled ad hoc tasks and coordinated with marketing to optimize campaigns.

#### Casino Copenhagen & Casino Marienlyst

Casino Croupier (Poker and Roulette)

2017 - 2018

- Operated poker and roulette tables, following gaming regulations and policies.
- Provided excellent customer service in a high-pressure environment.

#### Imerco, Hørsholm, Denmark

*Sales Assistant* 2014 – 2016

- Assisted customers, processed transactions, and maintained inventory.
- Organized promotional displays to increase store visibility.

#### **Publications**

D. Wright, C. Igel, G. Samuel, R. Selvan, "Efficiency Is Not Enough: A Critical Perspective on Environmentally Sustainable AI," *Communications of the ACM*, vol. 68, no. 7, pp. 62–69, June 2025. DOI: 10.1145/3724500.

Acknowledges P. Bakhtiarifard for access to and help with the EC-NAS benchmark data.

- P. Bakhtiarifard, P. Tözün, C. Igel, R. Selvan, "Climate And Resource Awareness is Imperative to Achieving Sustainable AI (and Preventing a Global AI Arms Race)," *arXiv pre-print*, 2025. arXiv:2507.12345.
- P. Bakhtiarifard, C. Igel, R. Selvan, "EC-NAS: Energy Consumption Aware Tabular Benchmarks for Neural Architecture Search," *ICASSP 2024*, Seoul, Korea, Republic of, 2024, pp. 5660-5664. DOI: 10.1109/ICASSP48485.2024.10448303.

#### **Conferences & Talks**

Machine Learning Operations (MLOps) Summer School, DTU, Denmark Tutorial on "Energy-Aware Model Selection" (Resource-Efficient ML).	Aug. 2025
<b>Thoughts for Future</b> , Copenhagen, Denmark Talk: "Behind the Hype: The Energy Challenge of AI" on AI scaling and energy.	Oct. 2024
ICASSP 2024, Seoul, Korea Poster presentation: EC-NAS: Energy Consumption Aware Tabular Benchmarks for NAS.	Apr. 2024
<b>D3A Conference</b> , Nyborg, Denmark Talk: "The Tightrope of ML" on resource efficiency in ML models.	Feb. 2024
AutoML Fall School, Munich, Germany Poster presentation on energy-efficient deep learning models.	Nov. 2023
Nordic AI Meet, Copenhagen, Denmark Poster on energy efficiency in Neural Architecture Search (NAS).	Oct. 2023

#### **Media Coverage**

# Go' morgen Danmark, Copenhagen, Denmark

**DIKU Bits**, University of Copenhagen

Apr. 2025

Sep. 2022

Guest on the danish morning show to give information about AI infrastructure, its impact and use-cases.

Co-presented with Dr. Raghavendra Selvan on environmental impacts of deep learning algorithms.

#### P1 Guld og Grønne Skove, Copenhagen, Denmark

Mar. 2025

Guest on Denmarks Radio (DR) discussing the relationship between AI and its role in the green transition.

Zetland, Copenhagen, Denmark

Aug. 2024

Interview by Zetland related to my work on neural architecture search to obtain energy efficient architecture with comparable performance.

News & Co., Copenhagen, Denmark

Apr. 2024

Featured on TV2 News to discuss the energy implications of AI.

University of Copenhagen, Copenhagen, Denmark

Apr. 2024

Article on UCPH website about my work on neural architecture search.

### **Committees and Memberships**

Institute of Electrical and Electronics Engineers (IEEE), Student Member	2023 - 2025
Empirical Methods in Natural Language Processing (EMNLP), Reviewer	Aug 2023
Sustainable Machine Learning Reading Group, University of Copenhagen	2023 - Present
Network and Infrastructure Committee, Rigshospitalets Kollegium	2021 - Present

#### **Personal Details**

#### **Research Interests**

Date of Birth: 20th Aug 1998

Citizenship: Danish

Languages: English, Danish, Persian

Algorithmic Complexity, Continual Learning, Topological Data Analysis, Optimization Methods for Deep Learning, Efficient Machine Learning, Neural Architecture Search, Financial Solutions

#### References

#### Dr. Raghavendra Selvan

Associate Professor, Department of Computer Science, University of Copenhagen

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#### Dr. Christian Igel

Professor, Department of Computer Science, University of Copenhagen

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Supported by grants for study abroad at ETH Zürich from:

- Danish Data Science Academy
- Stibofonden

**Grants** 

- · Knud Højgaards Fond
- William Demant Fonden
- · Familien Hede Nielsens Fond
- · Tømmerhandler Johannes Fogs Fond