

Phongsakon Mark Konrad

CV

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Summary

Incoming MSc Machine Learning student at the University of Tübingen with a background in empirical machine-learning research and research engineering. My recent work uses controlled interventions and ablations to test claims about learned representations and model internals. At Tübingen, I will strengthen the mathematical foundations needed to study representation formation, generalization, and reliable explanations of learned models, with the longer-term aim of pursuing a PhD.

Education

2026– **MSc Machine Learning**, *University of Tübingen*, Tübingen, Germany, *incoming, October 2026*
Research-oriented, four-semester programme. I plan to strengthen my foundations in probability, statistics, optimization, and learning theory.

2025 **Exchange, Computer Science & Engineering**, *Hong Kong University of Science and Technology*, Hong Kong SAR
Courses in machine learning, deep learning in computer vision, large language models, reinforcement learning, and postgraduate data visualisation.

2023–2026 **BSc in Engineering, Software Engineering**, *University of Southern Denmark*, Sønderborg, Denmark
Graduated June 2026. **Selected as the programme's best bachelor thesis in a graduating cohort of more than 100 students.**

Research Experience

2026– **Research Collaborator**, *HKUST DataVISards*, Hong Kong SAR
Machine-learning and data-visualisation research following my exchange semester.

2026– **Research Collaborator**, *SDU Data & Intelligence Lab*, Sønderborg, Denmark
Initiate and lead projects in collaboration with faculty and other researchers. Work across problem formulation, experimental design, implementation, analysis, and writing.

2024–2025 **Research Assistant**, *SDU Data & Intelligence Lab*, Sønderborg, Denmark
Built ML pipelines and contributed to study design, literature review, model development, manuscript preparation, grant proposals, and multimodal dataset management.

Selected Publications

2026 **P. M. Konrad**, T. Tanyel, S. Ayvaz. *Decoded but Unused: Instruction Tuning Routes Moral Framing into the Judgment Readout*. Poster, *ICML Workshop on Mechanistic Interpretability*. [OpenReview]
Matched pretrained/instruction-tuned models with probes, activation patching, head ablations, subspace controls, and cross-model replication.

2026 **P. M. Konrad**, T. Tanyel, S. Ayvaz. *Self-Reports Do Not Identify Self-Models: An Identifiability Test for Counterfactual Reports*. Oral presentation, *Philosophy of Machine Learning Workshop at ICML*. [PDF]
Environment-shift invariance tests across three open models separate report accuracy from mechanism binding.

Selected Publications (continued)

- 2026 **P. M. Konrad**, T. L. Adam, S. Ayvaz. *Coverage Debt: Pricing the Conformal Coverage Gap Through a Real Electricity-Market Redesign*. Preprint. [PDF]
Eight-zone benchmark with controls and placebo dates; documented contribution includes conceptualization, methodology, software, formal analysis, data curation, visualization, and original draft.
- 2025 **P. M. Konrad**, T. Tanyel, S. Ayvaz. *Beyond Major Floods: Deep Learning for Detecting Shallow Water Inundation in Agricultural Areas*. *KES 2025; Procedia Computer Science* 270, 301–310. [Published version]

Teaching

- 2026 **Teaching Assistant, Artificial Intelligence**, *University of Southern Denmark*
Led exercise sessions, supported students with AI and ML concepts, helped design hands-on lab assignments, and developed interactive supplementary course material.

Selected Recognition

- 2026 **Best bachelor thesis**, Software Engineering programme, University of Southern Denmark.
- 2026 **Best Startup Award finalist**, DreamBear, SDU Startup Night; one of five startups selected to pitch.
- 2026 **William Demant Foundation support** for graduate study.
- 2024, 2025 **Top 10**, Danish National Championship in AI, competing solo.

Military Service

- 2017–2021 **Staff Duty Soldier**, *Bundeswehr, German Armed Forces*, Glücksburg, Germany
Led a small HR team administering more than 600 soldiers. Received a **Formal Recognition for Exemplary Service** and a **Performance Bonus for Outstanding Achievement** in 2021.

Additional Experience

- 2026– **Founder**, *SaturoLabs*, Denmark
Built and shipped DreamBear, an iOS app creating personalised narrated bedtime stories that frame neurodivergent traits as strengths.
- 2024 **CTO & Co-Founder**, *Tutora ApS*, Sønderborg, Denmark
Led end-to-end development of the company's web application.
- 2022–2024 **Co-CEO & Co-Founder**, *Yeager GmbH*, Remote
Built an AI-assisted powerlifting training application.

Technical Skills

- Research Experimental design, controlled interventions, activation patching, representation probing, ablations, bootstrap uncertainty, model training and evaluation, segmentation, conformal prediction, reproducibility.
- ML Python, PyTorch, Hugging Face Transformers, TransformerLens, scikit-learn, pandas, NumPy, Optuna, Weights & Biases.
- Engineering Git, Docker, Linux, SQL, Google Cloud Platform, JavaScript.

Languages

- Fluent English, German
- Basic Danish, Thai