SAMMIE KATT

PERSONAL INFORMATION

Location	Helsinki, Finland
Citizenship	Dutch
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EDUCATION

2023-Present **Aalto University**

Postdoc Researcher

Postdoctoral researcher with Dr. Samuel Kaski with a focus on artificial theory of mind for human-in-the-loop settings.

2016-2023 **Northeastern University**

Computer Science PhD

Research assistant of of Dr. Amato with a focus on model-based Bayesian reinforcement learning in partially observable environments.

2015-2016 **The University of New Hampshire**

Research and teaching assistant (course on *Probabilistic AI and Machine learning*) for Dr. Amato. Research focused on Bayes-Adaptive Partially Observable Markov Decision Processes.

2012-2017 **The University of Amsterdam**

Masters of Artificial Intelligence

Track: *Machine learning*
Thesis: Efficient Bayesian Learning in Factored Partially Observable Environments. Adviser: Dr. F.A. Oliehoek.

2009-2012 **The University of Amsterdam**

Bachelor Beta-Gamma

Major: *Artificial Intelligence*
Interdisciplinary research Thesis: KBK-evac-program: the development of an artificially intelligent evacuation program.
Artificial Intelligence Thesis: Introducing Movement and Animations to Virtual Victim in USARSim.

SELECTED PUBLICATIONS

2026, AIStats

Hämäläinen, A., **Katt, S**., & Kaski, S (2026). Predictive Deep Sets. *In International Conference on Artificial Intelligence and Statistics*.

2025, AAAI

Zhu, Y., **Katt, S**., & Kaski, S. (2025). More Than Irrational: Modeling Belief-Biased Agents. *In Proceedings of the AAAI Conference on Artificial Intelligence*.

2025, NeurIPS Workshop

Katt, S., & Kaski, S. (2025). Artificial Theory of Mind in Human-in-the-Loop. *In NeurIPS Workshop on Theory of Mind in Human-in-the-Loop*.

2025, IROS

Nguyen, H., **Katt, S**., Xiao, Y., & Amato, C. (2023). On-robot Bayesian reinforcement learning for POMDPs. *In IEEE/RSJ International Conference on Intelligent Robots and Systems*.

2022, AAMAS

Katt, S., Nguyen, H., Oliehoek, F. A., & Amato, C. (2022). BADDr: Bayes-Adaptive Deep Dropout RL for POMDPs. *In Proceedings of the Autonomous Agents and MultiAgent Systems*.

2019, AAMAS — **Katt, S.**, Oliehoek, F. A., & Amato, C. (2019). Bayesian Reinforcement Learning in Factored POMDPs. *In Proceedings of the Autonomous Agents and MultiAgent Systems*.

2019, ICRA — Xiao, Y., **Katt, S.**, ten Pas, A., Chen, S., & Amato, C (2019). Online Planning for Target Object Search in Clutter under Partial Observability. *In International Conference on Robotics and Automation*.

2017, ICML — **Katt, S.**, Oliehoek, F. A., & Amato, C. (2017). Learning in POMDPs with Monte Carlo tree search. *In Proceedings of the 34th International Conference on Machine Learning-Volume 70*.

Misc Services

Session Chair — Co-chair of 2026 AAAI sessions on *Cognitive Modeling & Systems*.

Bridge Organizer — Organizer of the 2024 *AAAI Bridge Program* on Collaborative AI and Modeling of Humans.

School Organizer — Organizer of the 2024 *ELLIS Summer School* on Collaborative and Generative AI.

Reviewing — Several years of reviewing for most top-tier AI conference, including ICML (201-2025), NeurIPS (2023, 2024), AIStats (2025, 2026), and AAAI (2023-2026).

WORK EXPERIENCE

2020, Spring — **Aptiv, Boston**

Research Scientist Intern — Investigated self-driving car motion planning models conditioned on predictions of other vehicles. Designed and implemented a prediction-based planner in c++ capable of lane-following and lane-switching while considering the expected responses from other drivers. Developed, trained and tested a motion prediction network in python conditioned on other agent's predicted trajectories. This work generated a patent.

AWARDS

2013 — **Commendation for High Achievement**

University of Queensland Exchange — Worked on a postgraduate project on modeling Total Artificial Hearts and took the classes 'Models of Software Systems', 'Systems Engineering' and 'Introduction to Web Design'. The grades and achievements during this exchange resulted in a Dean of Academic Programs' Commendation for High Achievement.

2012 — **Finalist, interdisciplinary research symposium**

Institute of Interdisciplinary Studies, Bachelor — Reached the finals of the interdisciplinary research symposium. The group project resulted in an artificially intelligent 'KBK-evac-program', a building evacuation program. Contributed by designing the artificial intelligence aspect and the actual implementation of the software.

PROGRAMMING LANGUAGES & SOFTWARE

c++ · python · pytorch · tensorflow

LANGUAGES

Dutch · Native

English · Fluent