

Georg Friedrich Schuppe

Researcher with a Passion for Open Source



gschup



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WORK

SKANDINAVISKA ENSKILDA BANKEN AB | RESEARCHER

July 2023 - Current | Stockholm, Sweden

- Architected and co-developed AI prototypes, including RAG pipelines for compliance; LLM-based multi-agent systems for internal business knowledge or time-series prediction for financial data; collaborating closely with core business units (e.g., Risk Modeling, Corporate Customer Support) to ensure successful integration and validate immediate business impact.
- Articulated technical research and strategic insights on Generative AI and LLM agents to SEB Management Teams and external forums, including showcasing SEB's AI Research at SKF AB.
- Mentored and directed three Master's Thesis students from institutions like Chalmers and KTH, guiding research on financial event prediction using GNNs and privacy-preserving synthetic data generation [1].

KTH ROYAL INSTITUTE OF TECHNOLOGY | DOCTORAL STUDENT

Jan 2019 - July 2023 | Stockholm, Sweden

- Independently executed a four-year research project regarding provably correct task planning for multi-robot systems from temporal logic specifications [2].
- Collaborated with other doctoral students, professors and postdoctoral researchers to elevate the project and foster interdisciplinary research.

OPEN SOURCE

GGRS - ROLLBACK NETCODE LIBRARY | RUST

<https://github.com/gschup/ggrs>

- Architected and maintained GGRS, a high-performance Rust netcode library implementing state-of-the-art rollback netcode to achieve low-latency, reliable state synchronization for P2P multiplayer games.
- Attained significant community reception, achieving >1,000 GitHub Stars and >96,000 downloads, establishing GGRS as a leading rollback netcode solution in the rust game development ecosystem.
- Adopted by successful indie projects, including the crowdfunded Kickstarter [Fish Folk] and the Steam release [Signs of Danger]

SELECTED ACADEMIC PUBLICATIONS

- [1] Sara Saeidian, Ata Yavuzylmaz, Leonhard Grosse, Georg Schuppe, and Tobias J Oechtering. A tight context-aware privacy bound for histogram publication. IEEE Signal Processing Letters, 2025.
- [2] Georg Friedrich Schuppe. Assumptions in synthesis: An approach to multi-agent planning from spatio-temporal specifications. PhD thesis, KTH Royal Institute of Technology, 2023.
- [3] Georg Friedrich Schuppe and Jana Tumova. Decentralized multi-agent strategy synthesis under LTL_f specifications via exchange of least-limiting advisers. In 2021 International Symposium on Multi-Robot and Multi-Agent Systems (MRS), pages 119–127. IEEE, 2021.

SKILLS

PROGRAMMING

Rust • Python • LaTeX
C++ • Javascript • HTML

LIBRARIES/TOOLS

PyTorch • Tensorflow
Git • Docker • Google Cloud

LANGUAGES

German (Native), English (C1),
Swedish (B1)

EDUCATION

KTH ROYAL INSTITUTE OF TECHNOLOGY STOCKHOLM, SWEDEN

PHD IN COMPUTER SCIENCE

Jan 2019 - Jul 2023

LEIBNIZ UNIVERSITY HANNOVER, GERMANY

MASTER'S IN COMPUTER SCIENCE

Oct 2015 - Nov 2018

With Distinction

BACHELOR'S IN COMPUTER SCIENCE

Oct 2011 - Oct 2015

AWARDS

- 2021: Best Student Paper
Finalist at IEEE MRS 2021
- 2020: Karl Engvers Stiftelse
Research Travel Grant
- 2019: WASP affiliated PhD
student

REFERENCES

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KTH Royal Institute of
Technology

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