THERESA STADLER

PhD Research Assistant, Security and Privacy

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GoogleScholar
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EXPERIENCE

Teaching Assistant - *EPFL (CH)* **2019 – Present**
Teaching Activities in Information Security and Privacy.
Lectures at BSc and MSc level on computer security and privacy, incl. technologies, such as, differential privacy and privacy-preserving machine learning.

Research Scientist - *Privitar (UK)* **2016 – 2019**
Research and Product Development.
Designed, developed, and prototyped enterprise software that implements privacy-enhancing technologies at scale.

Graduate Student Research Assistant - *Werner Reichardt Centre for Integrative Neuroscience (DE)* **2015-2016**
Experimental Research and Data Analysis.
Statistical models of visual information processing in retinal ganglion cells.

Student Research Assistant - *University of Erlangen (DE)* **2012 - 2014**
Experimental Research and Data Analysis.
Electrophysiology and biophysical modelling of voltage-gated sodium channels and the molecular mechanisms of chronic pain disorders.

EDUCATION

PhD - *SPRING Lab, EPFL (CH)* **2019 - Present**
Supervised by Prof. Carmela Troncoso.
Research in Privacy, Risk Assessments, and Machine Learning.

MSc in Computational Neuroscience (GPA: 3.7/4.0) - *University of Tübingen (DE)* **2014 - 2016**
Lectures in Statistics, Machine Learning, Dynamic Systems, and Neuroscience

BSc in Biomathematics (GPA: 3.6/4.0)- *University of Erlangen (DE)* **2011 - 2014**
Lectures in Statistics, Linear Algebra, Physics, and Biology

ACADEMIC SERVICE & INVITED REVIEWS

PC Member **Conference on Fairness, Accountability, and Transparency -** *FAccT* **2024**

PC Member **Privacy Enhancing Technologies Symposium -** *PETS* **2019-2023**

Invited Reviewer **Workshop on Privacy in Machine Learning -** *NeurIPS'21* **2021**

Invited Reviewer **Workshop on Synthetic Data Generation -** *ICLR'21* **2021**

External Reviewer **Conference on Computer and Communications Security -** *CCS'19* **2019**

Reviewer **Rethinking data and balancing digital power** *by the Ada Lovelace Institute* **2022**
Report on a future vision for data use and regulation.
Available at `adalovelaceinstitute.org`

Reviewer **Privacy & Online Rights** *by Carmela Troncoso* **2019**
Chapter on Privacy & Online Rights in the Cyber Security Body of Knowledge.
Available at `cybok.org`

GRANTS & AWARDS

Graduate Grant - *Studienstiftung des Deutschen Volkes (DE)* **2011 - 2016**

SELECTED INVITED TALKS

Panel	**Looking beyond the EU data strategy: Where next for data use and regulation? -** *CPDP* Panel discussion on the future of data use and regulations	**2023**
Lecture	**Synthetic data as a privacy mechanism - A cautionary tale -** *MIT* Invited lecture in the Health Science and Technology Program	**2022**
Talk	**Why are Organisations Slow to Adopt PETs? Differential Privacy as a Case Study -** *EPFL* Invited talk on the challenges to adopt privacy-enhancing technologies in practice and at scale.	**2018**

SELECTED MEDIA COVERAGE

News Article	**Warum wollen plötzlich alle Luca? -** *Eva Wolfangel, Die Zeit* Available at `zeit.de`	**2021**
Podcast	**#22 Luca vs. Datenschutz -** *She likes Tech Podcast, NDR* Available at `ndr.de`	**2021**
News Article	**EU privacy experts push a decentralized approach to COVID-19 contacts tracing -** *TechCrunch* Available at `techcrunch.com`	**2020**
News Article	**Coronavirus apps: the risk of slipping into a surveillance state. -** *Financial Times* Available at `ft.com`	**2020**

PUBLICATIONS

2024

T. Stadler, B. Kulynych, N. Papernot, M. Gastpar, and C. Troncoso. The fundamental limits of least-privilege learning. *arXiv preprint arXiv:2402.12235*, 2024

2022

T. Stadler, B. Oprisanu, and C. Troncoso. Synthetic data – Anonymisation Groundhog Day. In *31st USENIX Security Symposium (USENIX Security 22)*, 2022

T. Stadler and C. Troncoso. Why the search for a privacy-preserving data sharing mechanism is failing. *Nature Computational Science*, 2022

C. Troncoso, T. Stadler, D. Bogdanov, E. Bugnion, S. Chatel, C. Cremers, S. Gürses, J.-P. Hubaux, D. Jackson, J. R. Larus, et al. Deploying decentralized, privacy-preserving proximity tracing. *Communications of the ACM*, 2022

2021

T. Stadler, W. Lueks, K. Kohls, and C. Troncoso. Preliminary analysis of potential harms in the luca tracing system. *arXiv preprint arXiv:2103.11958*, 2021

2020

C. Troncoso, M. Payer, J.-P. Hubaux, M. Salathé, J. Larus, E. Bugnion, W. Lueks, T. Stadler, A. Pyrgelis, D. Antonioli, et al. Decentralized privacy-preserving proximity tracing. *arXiv preprint arXiv:2005.12273*, 2020

V. von Wyl, S. Bonhoeffer, E. Bugnion, M. A. Puhan, M. Salathé, T. Stadler, C. Troncoso, E. Vayena, and N. Low. A research agenda for digital proximity tracing apps. *Swiss Medical Weekly*, 2020

M. Salathé, C. L. Althaus, N. Anderegg, D. Antonioli, T. Ballouz, E. Bugnion, S. Capkun, D. Jackson, S.-I. Kim, J. Larus, et al. Early evidence of effectiveness of digital contact tracing for sars-cov-2 in switzerland. *medRxiv*, 2020

2015

T. Stadler, A. O. O'Reilly, and A. Lampert. Erythromelalgia mutation q875e stabilizes the activated state of sodium channel nav1. 7. *Journal of Biological Chemistry*, 2015

PATENTS

2023

J. D. McFALL, C. C. Cabot, T. J. Moran, K. F. P. Guinamard, V. M. Eatwell, B. T. Pickering, P. D. Mellor, T. Stadler, A. Petre, C. A. Smith, et al. Computer-implemented privacy engineering system and method, Nov. 9 2023. US Patent App. 18/349,223

2022

C. C. Cabot, K. F. P. Guinamard, J. D. McFALL, P.-a. Maugis, P. Hector, B. T. Pickering, T. Stadler, J.-a. Tay, and S. Weller. Method or system for querying a sensitive dataset, Sept. 1 2022. US Patent App. 17/618,765