

# Karl Wüst

*Dr. Sc. ETH Zurich*

---

## Work History

- since 01/2025 **Staff Research Scientist**, *Mysten Labs*, Switzerland
- 01/2023 – 12/2024 **Senior Research Scientist**, *Mysten Labs*, Switzerland
- 10/2021 – 12/2022 **Tenure-Track Faculty (equiv. Assistant Professor)**, *CISPA Helmholtz Center for Information Security*, Saarbrücken, Germany
- 11/2016 – 09/2021 **Research Assistant & Doctoral Student**, *System Security Group, ETH Zurich*, Switzerland
- 02/2013 – 12/2014 **Student Teaching Assistant**, *ETH Zurich*, Switzerland
- 11/2007 – 04/2013 **Ski Instructor**, *Mountain Adventures AG*, Flims/Laax, Switzerland

---

## Education

- 11/2016 – 09/2021 **Dr. Sc. ETH Zurich (Computer Science)**, *System Security Group, ETH Zurich*
- 02/2015 – 07/2016 **MSc in Computer Science**, *Information Security Track, ETH Zurich*
- 09/2011 – 02/2015 **BSc in Computer Science**, *ETH Zurich*

---

## Selected Publications

- [1] **Karl Wüst**, Giacomo Giuliani, Markus Legner, Jean-Pierre Smith, Marc Wyss, Jules Bachmann, Juan A Garcia-Pardo, and Adrian Perrig. Hummingbird: Fast, flexible, and fair inter-domain bandwidth reservations. In *ACM SIGCOMM Conference*, 2025.
- [2] **Karl Wüst**, Kari Kostiainen, Noah Delius, and Srdjan Capkun. Platypus: A central bank digital currency with unlinkable transactions and privacy preserving regulation. In *ACM SIGSAC Conference on Computer and Communications Security (CCS)*, 2022.
- [3] **Karl Wüst**, Loris Diana, Kari Kostiainen, Ghassan Karame, Sinisa Matetic, and Srdjan Capkun. Bitcontracts: Supporting Smart Contracts in Legacy Blockchains. In *Network and Distributed System Security Symposium (NDSS)*, 2021.
- [4] **Karl Wüst**, Sinisa Matetic, Silvan Egli, Kari Kostiainen, and Srdjan Capkun. ACE: Asynchronous and Concurrent Execution of Complex Smart Contracts. In *ACM SIGSAC Conference on Computer and Communications Security (CCS)*, 2020.
- [5] Sarah Allen, Srdjan Capkun, Ittay Eyal, Giulia Fanti, Bryan A Ford, James Grimmelmann, Ari Juels, Kari Kostiainen, Sarah Meiklejohn, Andrew Miller, Eswar Prasad, **Karl Wüst**, and Fan Zhang. Design choices for central bank digital currency: Policy and technical considerations. Working Paper 27634, National Bureau of Economic Research, 2020.
- [6] Vasilios Mavroudis, **Karl Wüst**, Aritra Dhar, Kari Kostiainen, and Srdjan Capkun. Snappy: Fast on-chain payments with practical collaterals. In *Network and Distributed System Security Symposium (NDSS)*, 2020.
- [7] Sinisa Matetic, **Karl Wüst**, Moritz Schneider, Kari Kostiainen, Ghassan Karame, and Srdjan Capkun. BITE: Bitcoin Lightweight Client Privacy using Trusted Execution. In *28th USENIX Security Symposium*, 2019.
- [8] **Karl Wüst**, Kari Kostiainen, Vedran Capkun, and Srdjan Capkun. PRCash: Fast, Private and Regulated Transactions for Digital Currencies. In *International Conference on Financial Cryptography and Data Security*, 2019.

- [9] **Karl Wüst**, Sinisa Matetic, Moritz Schneider, Ian Miers, Kari Kostianen, and Srdjan Capkun. ZLiTE: Lightweight Clients for Shielded Zcash Transactions using Trusted Execution. In *International Conference on Financial Cryptography and Data Security*, 2019.
- [10] **Karl Wüst** and Arthur Gervais. Do you need a Blockchain? In *2018 Crypto Valley Conference on Blockchain Technology (CVCBT)*, 2018.
- [11] Hubert Ritzdorf, **Karl Wüst**, Arthur Gervais, Guillaume Felley, and Srdjan Capkun. TLS-N: Non-repudiation over TLS Enabling Ubiquitous Content Signing. In *Network and Distributed System Security Symposium (NDSS)*, 2018.
- [12] Arthur Gervais, Ghassan O Karame, **Karl Wüst**, Vasileios Glykantzis, Hubert Ritzdorf, and Srdjan Capkun. On the Security and Performance of Proof of Work Blockchains. In *ACM SIGSAC Conference on Computer and Communications Security (CCS)*, 2016.

---

## Selected Service & Other Activities

### Reviewer (Selection)

**Program Committee:** USENIX Security (2026), ACM CCS (2025, 2024, 2023), NDSS (2023), ACM AFT (2025, 2024), IEEE ICBC (2019). **Reviewer:** TIFS (2021, 2022), TDSC (2018). **Subreviewer:** USENIX Security (2017, 2018, 2019), IEEE S&P (2017, 2018, 2019, 2020, 2021, 2022), CCS (2016, 2018), NDSS (2018, 2019, 2020, 2021, 2022).

### Other (Selection)

- 03/2019 – 02/2021 **Chairman of the Studies Committee**, *ETH Zurich, Department of CS*
- 01/2018 – 02/2021 **Member of the Studies Committee and the Department Conference**, *ETH Zurich, Department of CS*, Representative of the Scientific Staff
- 03/2014 – 03/2015 **President**, *Verein der Informatik Studierenden an der ETH Zürich (VIS)*, VIS is the official CS student association at ETH Zurich
- 11/2014 – 05/2015 **Member of the Selection Committee for Assistant Professorships in Computer Science**, *ETH Zurich, Department of CS*, Student Representative
- 03/2013 – 09/2014 **Member of the Studies Committee and the Department Conference**, *ETH Zurich, Department of CS*, Student Representative
- 03/2013 – 03/2014 **Board Member for University Policies**, *Verein der Informatik Studierenden an der ETH Zürich (VIS)*, VIS is the official CS student association at ETH Zurich

---

## Honors and Awards

- 2022 **ETH Spark Award Top 5 Finalist**  
The Spark Award is an award for the best invention at ETH. Nominated for [2].
- 2020 **ETH Spark Award Top 5 Finalist**  
The Spark Award is an award for the best invention at ETH. Nominated for [6].
- 2016 **Honorary Membership of VIS**  
Awarded lifelong honorary membership for extraordinary contributions.

---

## Languages

German Native  
English Fluent