

Daria Schumm

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EDUCATION

Doctor of Philosophy

University of Zürich

July 2023 – Present

Zürich, Switzerland

- Thesis: Evaluation Framework for Decentralized Identity Systems
- Supervisor: Prof. Dr. Burkhard Stiller

Master of Information Technology

University of New South Wales

Feb 2020 – Dec 2022

Sydney, Australia

- Thesis: Efficient Credentials Revocation Using Cryptographic Accumulators
- Supervisor: Prof. Dr. Hey-young Paik
- Award with Excellence

Bachelor of Aviation Management

Massey University

Feb 2015 – Nov 2017

Auckland, New Zealand

PREVIOUS AND CURRENT EMPLOYMENT

Research Assistant

University of Zürich

July 2023 – Present

Zürich, Switzerland

- Research focuses on understanding and evaluating decentralized identity systems by examining the relationship between conceptual models and implemented behavior. Studying how responsibilities are distributed within systems, how requirements are specified and assessed, how abstract roles are operationalized, and how systems can be evaluated against their specifications.
- Working on a research project sponsored by the EU Horizon and in collaboration with companies such as STMicroelectronics, Collins Aerospace, and Trust Square. The project is addressing cybersecurity for IoT-enabled environments through a multi-stakeholder sharing of threats and mitigations. The project's result is Artwork.ID system, which offers capabilities to track artworks.
- Planning, developing, and editing of academic publications.

Research Assistant

University of New South Wales

Oct 2022 – Dec 2022

Sydney, Australia

- Literature review on blockchain opportunities in scientific data management.
- Development of a test environment for data storage with IPFS and Filecoin.
- Smart contract development based on privacy-preserving Oasis blockchain.
- Leading workshop on blockchain potentials for university data management.

TEACHING AND SUPERVISION OF STUDENTS

Teaching Assistant

University of Zürich

July 2023 – Present

Zürich, Switzerland

- Teaching and providing support to several university courses, including:
 - * Certificate of Advanced Studies in Blockchain (CAS)
 - * Protocols for Multimedia Communications (PMMK)
 - * Blockchains and Overlay Networks (BCOLN)
- Supervised eight Master (two ongoing) and eight Bachelor students (one ongoing).

Teaching Assistant

University of New South Wales

May 2021 – Oct 2023

Sydney, Australia

- Tutoring and running lab sessions for undergraduate and postgraduate students for:
 - * Data Structures & Algorithms (COMP9024)
 - * Database Systems (COMP9311/ZZEN9311)
 - * Securing Fixed and Wireless Networks (COMP9337)
 - * Cryptocurrency and Distributed Ledger Technologies (COMP6451)
 - * Software Architecture for Blockchain Applications (COMP6452)
 - * Engineering Project Management (GSOE9820)

ACTIVITIES IN KNOWLEDGE TRANSFER AND OPEN SCIENCE

Peer Reviewer

July 2024 – Present

- ACM Distributed Ledger Technologies Journal
- IEEE International Conference on Blockchain Computing and Applications
- IEEE Transactions on Network and Service Management
- IEEE Journal of Communications and Networks
- IEEE Journal of Social Computing
- Elsevier Journal of Information Security and Application
- Elsevier Journal of Information Processing & Management

TECHNICAL SKILLS

Languages: Python, SQL, JavaScript, TypeScript, HTML/CSS, Solidity, R

Frameworks: React, Node.js, Truffle, Hardhat, RESTful API

Developer Tools: Git, VS Code, Jamovi

Libraries: pandas, NumPy, Web3