BERTALAN ZOLTÁN PÉTER

PHD STUDENT

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Budapest, Hungary

EDUCATION & CERTIFICATIONS

2023–	PhD Student	Doctoral School of Informatics Budapest University of Technology and Economics
2021–2023	Master of Science	Computer Engineering Budapest University of Technology and Economics
2017–2021	Bachelor of Science	Computer Engineering Budapest University of Technology and Economics
2011–2017	grammar school	Piarista Gimnázium, Budapest

Highest Diploma: Master of Science (Budapest University of Technology and Economics, Budapest, 2023)

Other certifications:

2022 Oracle `1Z0-808` Java SE 8 Programmer I

2021 Green Certificate (for competence in course units on sustainable development; issued by the Department of Environmental Economics at BME)

MENTORING & PEDAGOGICAL EXPERIENCE

- Scientific Student Competition (TDK) Co-Advisor for two works
  - 2024 M. Tarnay: *Qualitative Reasoning-Based Fault Diagnosis in Distributed Systems*
  - 2023 M. Farkas, B. Á. Toldi: *Self-Evaluated Policies Using Zero-Knowledge Proofs* (1. Prize)
- BSc Thesis Advisor
  - 2024 A. Weisz: *Distributed-Tracing-Based Diagnosis of Microservices* (grade: excellent)
- Lab Supervisor on the mandatory BSc subject Software Engineering
- Lecture Presenter on BSc/MSc subjects
  - 2024 Reliable Distributed and Decentralized Systems (MSc, mandatory)
  - 2024, 2023 Blockchain Technologies and Applications (BSc/MSc, elective)
- Co-Mentoring in the 2023 Hyperledger Mentorship Programme (mentee: T. Surve)
- University Lab Demonstrator during BSc and MSc studies from three subjects
  - 2022, 2021 Blockchain Technologies and Applications (BSc/MSc, elective)
  - 2020 Operating Systems (BSc, mandatory)
  - 2019 Databases (BSc, mandatory)

PROFESSIONAL EXPERIENCE

2020–2023 Linux System Administrator at Novin Bt.

NOTABLE PROJECTS

2024– Architect of the *Data Veracity Assurance* building block in the EDGE-Skills EU project

2024 Participation in the ADVANCE EU project

2023– Participation in the SME4DD and EDIH EU projects (providing professional school courses in blockchain-related topics)

2023 Participation in the *Project Rosalind* TechSprint (Phase 2) organized by the Bank for International Settlements (BIS)

2023– Participation in the cooperation programme between BME and MNB (the central bank of Hungary)

ACADEMIC COMMUNITY INVOLVEMENTS

- reviewed 1 BSc thesis
- reviewed 3 conference papers
  - The International Congress on Blockchain and Applications (BLOCKCHAIN'24) – 2 papers reviewed
  - 27th Brazilian Symposium on Formal Methods (SBMF 2024) – 1 paper
- reviewed 1 journal paper
  - 27th International Conference on Fundamental Approaches to Software Engineering (FASE 2024)
- minute taker at 2 state exams

AWARDS & SCHOLARSHIPS

2024– Doctoral Excellence Fellowship Programme (DCEP)

2023 3rd place at the Polkadot Championship (as a member of a team of two)

2022–2023 National Higher Education Scholarship

2022 Best MSc presentation on the 29th BME MIT Minisymposium (based on audience votes)

2022 BME-VIK Scientific Student Competition: 2. Prize *(Design for Dependability in Distributed Ledger Systems)*

2022 3rd place at the Polkadot Metaverse Championship (as a member of a team of four)

2021 BME-VIK Faculty Scholarship

2021 BME-MNB Excellent Scientic Student Competition Paper

2021 BME-VIK Scientific Student Competition: 1. Prize *(ZKP-based Audit for Blockchain Systems Managing Central Bank Digital Currency)*

SELECT PUBLICATIONS

- B. Z. Péter, I. Kocsis. 'Privacy-Preserving Noninteractive Compliance Audits of Blockchain Ledgers with Zero-Knowledge Proofs.' Acta Polytechnica Hungarica 21.11 (2024). (2024 metrics: Q2, IF: 1.4)
- Á, Zsófia, B. Z. Péter, Z. Micskei, I. Kocsis. 'Smart Contract in the Loop: Fault Impact Assessment for Distributed Ledger Technologies.' The 14th Conference of PhD Students in Computer Science. 2024.
- B. Z. Péter, I. Kocsis. 'N-Version Programming as a Mitigation for Smart Contract Faults in Execute-Order-Validate Blockchain Systems.' 30th Minisymposium of the Department of Measurement and Information Systems (2023): 33-36.