Dipl.-Ing. Hubert Schölnast, BSc

Curriculum Vitæ

Professional Experience

since 11/2018 St. Pölten University of Applied Sciences

- **Research**

  Junior Researcher at the Institute of IT Security Research at St. Pölten University of Applied Sciences.

  Current Projects

  - LINK: Analysis and nowcasting of extreme weather events using data from commercial microwave links (FFG – KIRAS, Dec. 2020 – Nov. 2022)
  - APOG: Access point for basic oncological research in Lower Austria (EFRE, Jan. 2020 – Dec. 2023)
  - Dissertation project *"Clustering, classification and anomaly detection using information theoretic methods"* (FGG, Okt. 2021 – Sept. 2024)

  Completed Projects

  - ENS: Energy Network Security (FFG – KIRAS, Nov. 2018 – Apr. 2021)
  - Automatic detection of epilepsy spikes in long-term EEGs. (Innovation check, Aug. 2019 – Jun. 2020)

- **Teaching**
  - Fundamentals of Statistics, Applied Statistics
  - Theoretical Foundations of Computer Science
  - Model Checking – Formal Verification and Software Security

01/2011 — 10/2017 Own company: SHAPP - Schölnast Hubert Applications e.U.

- Development of individual web presences for various small businesses
- Mobile apps as a supplement to web presences
- Web and e-mail hosting and support

09/1993 — 10/2009 Raiffeisen Bank Group

- Data manager for Raiffeisen data warehouse
- Development and maintenance of banking software

Study and Training

since 10/2021 Doctoral program in Engineering Sciences Informatics/Computer Sciences at University of Vienna

- **Dissertation topic**

  Clustering, classification, and anomaly detection using information theoretic methods and methods from formal languages.

09/2017 — 08/2019 Master's program *"Information Security"* at St. Pölten University of Applied Sciences

- **Subjects**

  IT Security Basics, Penetration Testing, Secure Coding, Forensics, Privacy and Big Data, Incident Handling, System Security, Reverse Engineering and Obfuscation, …
- Performance scholarship in both years
- Graduation with excellent success
- **Diploma thesis**

  Anomaly detection in communication networks using methods from kinetic gas theory (101 pages)
  https://phaidra.fhstp.ac.at/view/o:3821

10/2009 — 02/2011 Master's program *"Business Informatics"* at University of Applied Sciences Technikum Wien

- **Subjects**

  Web-Development, Datawarehouse, Database Management Systems, IT security management, project management (PMI), Team and employee leadership, …
- All 3 semesters completed, but no master's thesis written

10/2006 — 06/2009 Bachelor's program *"Information and Communication Systems and Services"* at University of Applied Sciences Technikum Wien

- **Subjects**

  Computer science, programming, IT security, cryptography and coding theory, telecommunication networks and protocols, maintaining of web and mail servers …
- Performance scholarship in all three years
- Graduation with excellent success
- **Two Bachelor Theses**
  - Genetic Programming in the Context of Natural Computing (80 pages)
    https://www.grin.com/document/148852
  - Genetic Algorithms in Praxis (60 pages)
    https://www.grin.com/document/148855

09/1992 — 06/1993 College business informatics, WIFI Niklasdorf

10/1984 — 06/1992 Diploma programs chemistry and physics at University of Graz (not completed)

10/1983 — 05/1984 Military service

09/1979 — 06/1983 Bundes-Oberstufenrealgymnasium Graz (Matura)

Publications and Conference Participation

Conference Participation 02/2020
Publication 03/2020

Hubert Schölnast, Paul Tavolato and Philipp Kreiml, „Anomaly Detection in Communication Networks of Cyber-physical Systems using Cross-over Data Compression“, in *Proceedings of the 6th International Conference on Information Systems Security and Privacy*, ICISSP, ISBN 978-989-758-399-5; ISSN 2184-4356, pages 498-505, Malta, 2020.

DOI: 10.5220/0008964104980505

Publication 02/2020

Paul Tavolato, Hubert Schölnast and Christine Tavolato-Wötzl, „Analytical modelling of cyber-physical systems: applying kinetic gas theory to anomaly detection in networks“, in *Journal of Computer Virology and Hacking Techniques*, Vol. 16, pages 93-101, Springer, 2020.

DOI: 10.1007/s11416-020-00349-9