Louis Vialar

Software Engineer

Lausanne, Switzerland
📱 *(+41) 76 805 15 99*
✉ louis@louisvialar.me
github.com/zyuiop
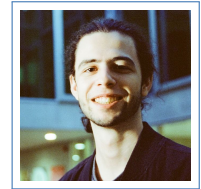
Education

2019 – 2022	**MSc in Computer Science**, *EPFL*, Lausanne, Switzerland, GPA 5.5/6 Speciality: Computer Security Thesis title: Side Channel Analysis of NIST Lightweight Cryptography Candidates
2016 – 2019	**BSc in Computer Science**, *EPFL*, Lausanne, Switzerland, GPA 5.1/6 Generalist Computer Science degree, with focus on Software Engineering courses.

Work Experience

2022 – 2024	**Developer**, *Apptitude SA*, Lausanne, Switzerland Develops custom-made apps for enterprise customers all over Switzerland.
2022 – 2022	**Rapid Prototyping Engineer**, *Kudelski Security*, Lausanne, Switzerland Developed quick prototypes of potential future products for internal assessment.
2021 – 2022	**Trainee**, *Kudelski Security*, Lausanne, Switzerland Internship and Master's Thesis. Conducted side-channel analysis of multiple lightweight symmetric ciphers participating in the NIST Lightweight Cryptography standardization process. Worked on internal web-applications (both frontend and backend).
2018 – 2021	**IT Student Assistant**, *EPFL*, Lausanne, Switzerland, Part time Troubleshooted problems on students personal computers.
2018 – 2020	**Teaching Assistant**, *EPFL*, Lausanne, Switzerland, Part time Contributed to the teaching and grading of an undergraduate compilers course. Contributed to the teaching, course material and grading of an undergraduate software engineering course. Supervised 6 to 7 student teams in the undergraduate software engineering project course.
2015 – 2017	**Software Developer**, *Epicube SAS*, Remote, Part time Worked on the network stack of a multiplayer game network, hosting more than 11'000 simultaneous players and more than 1M unique players.

Voluntary Work Experience

2022 –	**Organizer**, *PolyLAN*, Lausanne, Switzerland, Voluntary Participated to the organization of a LAN party at EPFL. Helped with the deployment of the network infrastructure (Cisco Switches and Linux router, UDP broadcast across VLANs). Helped developing custom internal web-applications.
2018 –	**President, IT Manager**, *Japan Impact*, Lausanne, Switzerland, Voluntary Organized multiple editions of a Japanese culture convention for about 10'000 visitors over a weekend. Designed and developed the ticketing website and point-of-sale system. Designed and developed multiple internal applications, including a CAS and SAML SSO. Deployed and maintained a deployment using Docker Swarm. Managed an organizing committee of 30 voluntary members.

2014 – 2015 **Software Developer**, *SamaGames*, Remote, Voluntary
Built the network stack and managed the servers of a multiplayer game network, hosting more than 3'000 simultaneous players and more than 300'000 unique players.

Publications and conferences

2022 Fast Side-Channel Key Recovery Attack on Elephant Dumbo (eprint). Presented at NIST LWC 2022 and SSTIC 2022.

2022 Side-Channel Analysis of NIST Lightweight Candidates (self-hosted) (Master's thesis).

Languages

French Mother tongue

English Fluent (C1)

Hobbies

○ Science fiction and fantasy works

○ Video-games, in particular J-RPG

○ Tabletop RPGs