

JÉRÉMI DO DINH

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EXPERIENCE

Software Engineering Intern at SonarSource September 2023 - February 2024

- Contributed to the development and maintenance of new and existing features for Python analysis, operating within a Scrum framework.
- Gained expertise in test-driven development methodologies, ensuring high-quality software deliverables.

Software Developer at RailVision Analytics September 2020 - June 2021

- Close work with core server architecture and APIs used in the data processing pipeline.
- Key role in the migration to AWS.

Teaching, tutoring and mentoring September 2019 - June 2023


- Regular appointments as a teaching assistant at McGill and EPFL.
- Certified kitesurfing instructor ([IKO](#)), with experience teaching in Sicily.

Summer internship at CN Rail May 2019 - August 2019

- Contributed to the winning team of the I&T Business Case competition, targeted at developing a technology-based business solution for CN. Received C\$1200 scholarship as part of the winnings.

EDUCATION

EPFL - MSc in Computer Science September 2021 - August 2024



- Thesis: “*Simulation Security in the Random Oracle Model*” – [PDF](#)  (GPA: 5.25/6.0)
- Supervised by Alessandro Chiesa and Giacomo Fenzi.

McGill University - BSc in Mathematics & Computer Science September 2017 - April 2021

- Minor in Musical Science & Technology. (GPA: 3.87/4.0)
- Exchange semester at UBC Vancouver (January-April 2020).

RESEARCH PROJECTS AND PUBLICATIONS



Tight inapproximability of well-supported Nash equilibria in public goods games 2023

- with Alexandros Hollender – [ipl.2024.106486](https://doi.org/10.21203/3.106486)  [arXiv:2402.14198](https://arxiv.org/abs/2402.14198) 
- Obtained hardness results for computing approximate equilibrium points in public goods games, significantly improving the previous upper bound. Completed as part of a Semester Project at [THL5](#), [EPFL](#).

Integer Programming with Complete Constraint Matrices [Report](#)  2022

- Master’s Semester Project Supervised by Alexandra Lassota, [DISOPT](#), [EPFL](#).

ACADEMIC PROJECTS

BobbyChain: Smart Contracts using PoW and pBFT [Report](#)  - [Presentation](#)  2022

- Implemented an array of functionalities of “*Peerster*”, a gossip-based peer-to-peer application.
- Built smart contracts on top of a generic consensus interface, along with two consensus algorithms, which can be used interchangeably: Proof-of-Work and practical Byzantine Fault Tolerance.

Broadcast Algorithms [Course](#)  2021

- Implemented in Java the necessary building blocks for a functioning distributed system including *Perfect Links*, *FIFO Broadcast* and *Localized Causal Broadcast*.
- Completed as part of the *Distributed Algorithms* course at EPFL.

SKILLS AND INTERESTS

Technologies Rust, C/C++, Java, Python, Go, Git, L^AT_EX, Bash.

Languages *Fluent*: English, French and Polish. *Learning*: German and Italian.

Interests Theory of Computation, Software Development, Probabilistic Proof Systems, Zero-Knowledge, Music, Kitesurfing, Skiing.