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 - *present*
- Specialization in Computer Science Theory. (GPA: 5.17/6.0)
- *Thesis (in progress)*: "Simulation security in the Random Oracle Model."
- 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 arXiv: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, LaTeX, 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.