

# Kérian Fiter

✉ [kerian.fiter@polymtl.ca](mailto:kerian.fiter@polymtl.ca) | [kerianfiter.github.io](https://github.com/kerianfiter) | [ORCID](https://orcid.org/) | [Google Scholar](https://scholar.google.com/)

## RESEARCH INTERESTS

---

Digital Twin Engineering (DTE), Large Language Models (LLMs), Ontologies (OML), Neuro-symbolic AI, Robotics & Simulation, 3D Visualization, Human-Computer Interaction (HCI), XR/Virtual Reality.

## CURRENT POSITION

---

### Polytechnique Montréal

Aug. 2024 – Present

*PhD Student in Software Engineering*

Montreal, Canada

- Research on the prototyping and understanding of Digital Twins under the supervision of Prof. Bentley Oakes.
- Developed automated tooling for explicit, interactive, and continuous DT reporting.

## EDUCATION

---

### Polytechnique Montréal

Aug. 2024 – Expected Jan. 2029

*PhD in Software Engineering (Fast-tracked from Master's)*

Montreal, Canada

### École Centrale de Nantes

2022 – 2026

*Diplôme d'Ingénieur (Double Master's degree with Polytechnique Montréal)*

Nantes, France

- Specialized in Software Engineering for Virtual and Augmented Reality.

### Lycée Chateaubriand

2020 – 2022

*Classes Préparatoires aux Grandes Écoles (MPSI/MP)*

Rennes, France

- Intensive preparation in mathematics, physics, chemistry, and computer science.

## ACADEMIC & INDUSTRY EXPERIENCE

---

### Michelin (via Mitacs Accelerate)

Feb. 2026 – Present

*Software Research Engineer Intern*

Montreal, Canada

- Developing Digital Twin architectures for financial simulations.

### Naval Group Pacific

2024 (5 months)

*Software Engineer Intern (Supervised by Prof. Cédric Buche)*

Adelaide, Australia

- Engineered multi-agent drone simulations in maritime environments for the LOTUSim combat Digital Twin using ROS2, Gazebo, C++, and Python within the CNRS International Research Lab (IRL CROSSING).

### Orange Innovation

2023 (1 month)

*Software Engineer Intern*

Lannion, France

- Implemented automated drift verification for anechoic chamber measurements to improve 5G/6G antenna calibration.

## AWARDS & HONORS

---

### Mitacs Accelerate Grant

2026

- Awarded research funding for a Ph.D. industrial collaboration with Michelin.

### XR Hackathon Winner | Laval Virtual Center / CLARTE

2024

- First place winner at the XR Hackathon.

## PUBLICATIONS

---

**DTInsight: A Tool for Explicit, Interactive, and Continuous Digital Twin Reporting** 2025

- Published and presented at EDTconf 2025 / MODELS-C 2025.
- DOI: [10.1109/models-c68889.2025.00030](https://doi.org/10.1109/models-c68889.2025.00030)

**DTScribe: Generating Models for Digital Twin Reporting using Local Large Language Models** 2026

- Submitted to the International Journal on Software and Systems Modeling (SoSyM).

## ACADEMIC SERVICE & PRESENTATIONS

---

**Student Volunteer** | *SEMLA Symposium* Jun. 2026

- Student volunteer for the Software Engineering for Machine Learning Applications Symposium (SEMLA 2026).

**Guest Lecturer & Speaker** | *Various Institutions* 2025 – 2026

- Presented DTInsight during the Digital Twin Engineering course at Polytechnique Montréal (Feb 2026).
- Presented a live demo of DTInsight at the Use Case and Digital Twin Factory Workshop in Lyon, France (Jan 2026).
- Presented at the SEMTL meeting at Université de Montréal (Sep 2025).

**Student Volunteer** | *MODELS Conference* Oct. 2025

- Served as a student volunteer and presented a poster for DTInsight at the 28th International Conference on Model Driven Engineering Languages and Systems (MODELS 2025) in Michigan, USA.

**Tutorial Presenter** | *SEMLA Symposium* Jun. 2025

- Co-presented “What is a Digital Twin and How Do I Build One?” with Prof. Bentley Oakes at Polytechnique Montréal.

## LANGUAGES

---

**French** (Native) | **English** (Bilingual/Fluent) | **Spanish** (Intermediate)