# Tim Lebailly

timlebailly.com

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## EDUCATION

### EPFL
MSc in Data Science
Sep 2018 - Mar 2021 | Lausanne, CH
GPA: 5.67/6.0
150 ECTS / 120 ECTS done

### KU LEUVEN
BSc in Electrical engineering & Computer science
Sep 2015 - Jun 2018 | Leuven, BE
Cum Laude

## INFO

Nationalities: 🇧🇪 and 🇨🇦
Website:// **timlebailly.com**
Github:// **tileb1**
LinkedIn:// **Tim Lebailly**

## SELECTED COURSES

Advanced Algorithms
Machine Learning
Deep Learning
High Performance Computing
Computer Vision

## SKILLS

### PROGRAMMING
**Over 5000 lines:**
Python • Java • C • Matlab
**Good knowledge:**
SQL • Git • CUDA • Node.js
**Frameworks:**
PyTorch • NumPy • Pandas • OpenCV
Scikit-Learn • PySpark • XGBoost

### LANGUAGES
French: Native
English: Fluent
Dutch: Fluent

## VOLUNTARY WORK

Collectively raised more than 220 000 EUR for humanitarian projects and planted more than 2000 trees in Tamil Nadu, India to fight against pollution.

## AWARDS

SEMP Scholarship: Swiss-European Mobility Programme
6th place at Physics Olympiad (National)

## EXPERIENCE

### ORACLE LABS | Research Assistant
Sep 2020 – March 2021 | Zurich, CH
- Working on a fast and scalable Graph Learning framework (GraphMLlib) as part of Parallel Graph AnalytiX group (PGX).
- Conceiving add fraud detection system based on Unsupervised Graph Machine Learning.

### IBM | Machine Learning Intern
Jul 2019 - Sep 2019 | Brussels, BE
- Prototyped multiple machine learning models for bank loan default prediction based on a biased dataset in Python.
- Identified non-fair outcome for women and reduced bias by 95% using multiple algorithms included in the IBM aif360 python package.
- Developed sandboxed social media backend and chatbot integration (Node.js) used in privacy awareness game for kids aged 12-16.

### EPFL ROCKET TEAM | Software engineer
Sep 2018 – June 2019 | Lausanne, CH
- Award for Technical Excellence received at the at Spaceport America Cup 2019.
- Responsible for data measurement and analysis as part of the avionics sub-team.
- Implemented CAN-bus communication for 5 independent custom PCB's using C resulting in a more robust system.

### KU LEUVEN | Summer Intern
Jul 2018 – Aug 2018 | Leuven, BE
- Selected for this position based on academic results.
- Conceived state space models for the stabilization and autonomous navigation of quadcopters in Matlab.
- Implemented the algorithms on embedded processors in C to fly a physical autonomous drone.

### G-HITECH | Project engineer & Team leader
Sep 2017 – Aug 2018 | Louvain, BE
- Led team of 5 towards the development of "Energy-box" containing battery racks and DC-AC inverter designed for rural use in Africa.
- Fully self built off-grid solution allowing better access to electricity to local population.
- Spent 3 weeks at the University of Western Cape in South-Africa for integrating the "Energy-box" with local partners.
- Our "Energy-box" project was documented in a Belgian **newspaper article**.

## SELECTED PROJECT

### NEURAL NETWORK STOCHASTIC OPTIMIZER | Read more
Submitted work as part of the ICLR reproducibility challenge 2019 with implementation in PyTorch. This optimizer combines SGD and Multi-Armed Bandit to choose the size of the mini-batch used during the optimization allowing fast descent rates when possible and variance reduction when needed.