Tim Lebailly

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EDUCATION

EPF LAUSANNE
MEng in Data Science
Sep 2018 - Dec 2020 | Lausanne, CH
GPA: 5.6/6.0 (93%)

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

INFO

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

SELECTED COURSES

GRADUATE
Advanced Algorithms
Machine Learning
Deep Learning
Learning Theory
Statistics for Data Science
High Performance Computing
Markov Chains and applications
Introduction to NLP
Applied Data Analysis

SKILLS

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

LANGUAGES
French: Native or bilingual
English: Native or bilingual
Dutch: Native or bilingual

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.

EXPERIENCE

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 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
- 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 | Lab assistant
Jul 2018 – Aug 2018 | Leuven, BE
- 2 out of 100 students 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 using C to fly the physical autonomous drone.

G-HITECH | Project engineer & Team leader
Sep 2017 – Aug 2018 | Louvain, BE
- Lead 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** from *Le Soir*.

SELECTED PROJECTS

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 chose the size of the mini-batch used during the optimization allowing fast descent rates when possible and variance reduction when needed.

STOCHASTIC MULTIMODAL TRANSPORT PLANNER | Read more
Developed a stochastic journey planner for the Swiss transport network using Big data. This software computes multiple fastest paths as well as the probability of not being late for all transits. Implementation in Python using PySpark, Pandas, NetworkX.