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US & French citizen

education

04/2019

09/2016 Master of Science & Engineering /speciality Robotics + extra credits in Computational Neuroscience, EPFL

09/2012 06/2016 Bachelor of Science & Engineering /speciality Microengineering, EPFL

06/2012 French Baccalaureate, Scientific specialization & advanced Mathematics summa cum laude

publications

Learning Representations of Source Code from Structure and Context Bourgeois, Catasta, Leskovec

pre-print

A dynamic embedding model of the media landscape

Rappaz*, Bourgeois*, Aberer WWW'19

GNNExplainer: Generating **Explanations for Graph Neural** Networks

Ying, Bourgeois, You, Zitnik, Leskovec pre-print

Selection Bias in News Coverage: Learning It, Fighting It

Bourgeois*, Rappaz*, Aberer WWW'18

Using holistic information in the Trigger

Bourgeois, Fitzpatrick, Stahl LHCb Pub

New approaches for track reconstruction in LHCb's Vertex Locator

Hasse, Albrecht, Couturier, Bourgeois, Coco, Nolte, Ponce **JHEP'18**

English mother tongue French mother tongue Spanish fluent

currently

SNAP, Stanford / LTS2, EPFL, Sept 2018-July 2019

Masters thesis project, working on learning deep representations of source code from structure and context, integrating rich feature information from graph structures and multimodal representations from programming languages. After a successful defense with honors, this work is currently being pursued and extended.

did it experience

LHCb Trigger Group, CERN, Feb-Aug 2018

As an intern, investigated machine learning methods which would select interesting particle collisions in a processing-friendly way, using only low-level detector information.

Robot Learning & Interaction Group, IDIAP,

Sept-Dec 2017

As part of a semester project, we were investigating partial joint control on a humanoid robot. This project was finalized by an AR interface based on Tango to control the Baxter robot.

Distributed Information Systems Laboratory (LSIR), EPFL. Feb-Jun 2017

As part of a semester project, we worked on identifying correlations in news coverage using Matrix Factorisation methods, usually used in recommender systems.

Learning Algorithms and Systems Laboratory (LASA), EPFL, Feb-Jun 2016

Studying failure detection, prediction and recovery for robots. Using the robot's internal and external sensors, were trying to determine when a robot task execution was about to fail.

Institut de Robòtica i Informàtica industrial (IRI), **UPC-Barcelona**, Summer 2016

Extending a visual odometry framework to support inertial readings at a high frequency. This included verifying and implementing IMU preintegration on manifold methods

Laboratory of Intelligent Systems (LIS), EPFL, Sept-Dec 2015

Implementation of a free-fall recovery algorithm for a quadcopter, allowing for emergency stabilization or throw recovery.

can do programming

Main ••• Python Scholar ••• C(++) Working ••• Swift/Rust/JS

can do software

Solidworks (CAD) Matlab Sketch • Gantt Project • ROS Final Cut Pro Premiere Pro Docker Sklearn PyTorch

and also...

Speaker Al+Journalism Workshop pilote.media, 2019

Speaker ML Workshop powercoders, 2018

Teaching Assistant Applied Data Analysis, EPFL, 2017

Head of IT Satellite, EPFL, 2016-2017

Stage + Music programmer Sat Rocks, EPFL, 2016

Contributor Signal for iOS Open Whisper Systems, 2014

Freshman Counselling EPFL, 2014

Student Assistant CS101 EPFL, 2013

and for fun...

Tennis Running Climbing Music curation • Film editing • Traveling

