Dylan Bourgeois

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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 extended for a conference submission.

education

09/2016 04/2019 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

A dynamic embedding model of the media landscape
Rappaz, **Bourgeois**, Aberer
WWW'19

GNN-Explainer: a tool for post-hoc interpretability of 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

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

Python • C(++) • JS
Swift • LaTex • Rust

can do software

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

and also...

Organizer, ML Workshop
Powercoders, 2018

Teaching Assistant
Applied Data Analysis, EPFL, 2017

Head of IT
Satellite, EPFL, 2016-2017

Music programmer
Sat Rocks Festival, 2016

Contributor, Signal for iOS
Open Whisper Systems, 2014

Freshmen Counselling
EPFL, 2013

Student Assistant, CS 101
EPFL, 2013

and for fun...

Tennis • Running • Climbing
Music curation • Film editing • Traveling

can speak...

French + English (mother tongue)
Spanish (fluent)