# Luiz Gustavo Hafemann

#### Computer Vision researcher

Computer Vision Researcher at SPORTLOGIQ. I have been modelling and training deep learning systems for computer vision for the past 7 years, with 12 published articles (over 600 citations on google scholar), including top tier venues such as CVPR and IEEE Transactions on Information Forensic and Security.

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(by request)

Montreal

luizgh.github.io/

github.com/luizgh

#### **WORK EXPERIENCE**

### **Computer Vision Researcher** SPORTLOGIQ

04/2019 - Present

Montreal, Canada

Achievements/Tasks

 Applying computer vision to sports analytics, including classification tasks and video activity recognition

# **Software engineer / Database administrator** ExxonMobil

2009 – 2015

Curitiba, Brazil

Achievements/Tasks

- Software engineer for web-based applications, using C# .NET.
- Lead developer for a Database Automation solution and a Help Desk application, coordinating activities of 4 other developers. Used Scrum to manage the projects.
- Database support for mission-critical SQL Server applications.

#### **EDUCATION**

## PhD in Machine Learning

École de Technologie Supérieure

2015 – 2019

Montreal, Canada

Details

- Project: Learning features for Signature Verification.
- 4 journal papers (IEEE Transactions on Information Forensics and Security, Pattern Recognition, IJDAR), 4 conference publications (CVPR, ICPR, IJCNN, IPTA).
- Participated in the Montreal Deep Learning Summer School (2015 and 2016).

#### MS in Informatics

Federal University of Parana

2013 – 2014

Curitiba, Brazil

Details

- Project: Deep Learning for texture classification.
- 2 conference publications (ICPR, IJCNN).

## BS in Computer Science

Federal University of Parana

2005 – 2008

Curitiba, Brazil

Details

• Project: Data warehouse modelling for a sales application.

#### **SKILLS**

Machine Learning

Python

Pytorch

Tensorflow

Git

C++

C#

#### **PROJECTS AND ACHIEVEMENTS**

#### NIPS Competitions on Adversarial Examples

1st place on the NIPS 2018 Adversarial Vision Challenge (untargeted attack track), and 3rd place on two other tracks. On the NIPS 2017 competition, got silver medals in attacks; bronze medal in defense.

#### Merit scholarship recipient (FRQNT/PBEEE)

Awarded a merit scholarship for international students from FRQNT.

#### Lecturer on Deep Learning for CV (08/2016)

Presented a 15-hour tutorial on Deep Learning for Computer Vision to graduate students in PUC-PR and UFPR in Curitiba/Brazil.

#### Maintainer of DESLib (Dynamic Ensemble Selection)

Worked on the creation of the library, helping the design of unit and integration tests, fixing bugs and organizing the library to be included in scikit-learn-contrib.

#### Contributor to Lasagne (Deep Learning library)

Implemented Spatial Pyramid Pooling on the lasagne library (being ported to tensorflow).

#### **CERTIFICATES**

#### Coursera courses (2012 – 2014)

Machine Learning, Probabilistic Graphical Models (with distinction), Neural Networks for Machine Learning, Calculus: Single Variable.

#### **LANGUAGES**

English

Portuguese

French

#### **INTERESTS**

Representation Learning

Adversarial machine learning

Climbing

Snowboarding

**Board games**