

# Joseph Boyd

## Deep Learning Specialist



British Citizen



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## EXPERIENCE

PARIS, FRANCE JAN 2021 – DEC 2023

CentraleSupélec

### Postdoctoral Researcher

Research and prototyping novel deep learning systems for medical imaging with self-supervision, generative models, and transformers. HPC with PYTHON and PyTorch.

2nd Best Paper at ICCV workshop CDpath 2021

Ref: Dr. Maria Vakalopoulou [maria.vakalopoulou@ecp.fr](mailto:maria.vakalopoulou@ecp.fr)

PARIS, FRANCE OCT 2016 – JUN 2020

PSL Paris Sciences & Lettres University

### Doctoral Researcher

Novel applications of machine learning, domain adaptation and object detection for single-cell phenotyping in bioimage drug screen. TA/lecturer in machine learning.

Manuscript: [pastel.archives-ouvertes.fr/tel-02928984](https://pastel.archives-ouvertes.fr/tel-02928984)

Ref: Dr. Chloé Azencott · [chloe-agathe.azencott@curie.fr](mailto:chloe-agathe.azencott@curie.fr)

GENEVA, SWITZERLAND FEB 2015 – JUL 2015

CERN

### Master Thesis Intern

Feature engineering for the NLP task of automatic meta-data extraction in a Java-based tool.

Manuscript: [cds.cern.ch/record/2039361](https://cds.cern.ch/record/2039361)

Ref: Dr. Gilles Louppe · [g.louppe@uliege.be](mailto:g.louppe@uliege.be)

GENEVA, SWITZERLAND JUL 2014 – SEP 2014

UN International Computing Centre

### Summer Intern

Survey, design and configuration of management “dashboard” using business intelligence (BI) softwares.

Ref: Mr. Djamel Kacel · [kacel@unicc.org](mailto:kacel@unicc.org)

BRISBANE, AUSTRALIA NOV 2010 – AUG 2013

AECOM

### Mathematician

Consultant and supply-chain simulation programmer.

Ref: Mr. Prabhakar · [susheel.prabhakar@aecom.com](mailto:susheel.prabhakar@aecom.com)

## EDUCATION

2016 – 2020 **Doctor of Philosophy**

Bioinformatics

PSL · France

2013 – 2015 **Master of Science**

GPA: 5.43(/6)

Computer Science

EPFL · Switzerland

2007 – 2010 **Bachelor of Science**

GPA: 6.375(/7)

Mathematics / IT

QUT · Australia

## SKILLS

CODING PYTHON, C++, MATLAB, SQL

PYTHON TensorFlow, PyTorch, NumPy  
scikit-learn, scikit-image

AI/ML Computer vision, deep learning,  
generative models, transformers  
object detection, segmentation

DEVOPS Docker, git, conda, BASH

LANGUAGES English, French, Spanish

<https://github.com/jcboyd>

## SELECTED PUBLICATIONS

Boyd, J. et al. (2023). *Structured State Space Models for Multiple Instance Learning in Digital Pathology*. **MICCAI 2023**.

Boyd, J. et al. (2022). *Region-guided CycleGANs for Stain Transfer in WSIs*. **MICCAI 2022**.

Boyd, J. et al. (2021). *Self-Supervised Representation Learning using Visual Field Expansion on Digital Pathology*. **ICCV 2021**.

[scholar.google.com/citations?user=fvzFcqYAAAAJ](https://scholar.google.com/citations?user=fvzFcqYAAAAJ)

## AWARDS

2nd Best Paper at ICCV Workshop CDpath 2021

CVPR 2023 outstanding reviewer award

QUT Dean's Merit Award 2008, 2009, 2010.