JOSEPH BOYD

PERSONAL INFORMATION

Born in United Kingdom, 04 August 1989

email joseph.boyd@mines-paristech.fr

web linkedin.com/in/josephcaiboyd

jcboyd.github.io/

github.com/jcboyd

phone (M) +33 768 794 636

CURRENT POSITION

2016-2020 PhD Student, Institut Curie/École Nationale Supérieure des Mines de Paris/Paris Science et Lettres — Paris

PSL

Applied deep/machine learning spanning two bioimage projects in high content analysis. Thesis title: Adversarial methods for computational phenotyping in cell-based assays
Reference: Dr. Thomas Walter · +33 649 987 208 · thomas.walter@curie.fr

WORK EXPERIENCE

Feb-Jul 2015 Master Thesis Student, CERN — Geneva

CERN

Application of machine learning techniques for metadata extraction of PDF articles in the INSPIRE-HEP digital library (cds.cern.ch/record/2039361).
Reference: Dr. Gilles Louppe · +41 779 953 433 · g.louppe@uliege.be

Jul-Sep 2014 Summer Intern, United Nations International Computing Centre — Geneva

UNICC

Survey, design and configuration of management "dashboard" using business intelligence (BI) softwares.
Reference: Mr. Djamel Kacel · +41 229 292 573 · kacel@unicc.org

2010-2013 Graduate Mathematician, AECOM — Brisbane

AECOM

Programmer and analyst for discrete-event simulation models of rail, shipping, and other supply chain systems at *Fortune 500* consultancy firm. Key Projects included Port of Gladstone Capacity Analysis for Gladstone Port Corporation (GPC) (2010-2013), Gold Coast Commonwealth Games Demand Forecasting Study for Queensland Government Department of Transport and Main Roads (TMR) (2012), Surat Basin Rail (SBR) Early Contractor Involvement (ECI) review (2012). Extra-curricular: organised, presented a series of "Excel Excellence" seminars.
Reference: Dr. Paul Corry · +61 731 385 195 · p.corry@qut.edu.au

EDUCATION

2013-2015 MSc Computer Science, École Polytechnique Fédérale de Lausanne — Lausanne

EPFL

GPA: 5.43 (6)
Thesis: *Automatic Metadata Extraction – The High Energy Physics Use Case*
Description: Completed range of core computer science courses with a leaning towards subjects relating to data science. Graduated October 3, 2015.
Advisor: Dr. Martin Rajman · +41 216 938 162 · martin.rajman@epfl.ch

2007-2010 BSc Maths/IT, Queensland University of Technology — Brisbane

QUT GPA: 6.375 (7) · *With Distinction* · *Minor in Software Architecture*
Description: Dean's List Award 2008, Head of School's Award for Excellence in Mathematics 2008, and Dean's Merit Award 2008, 2009, and 2010.

PUBLICATIONS

Boyd, J., Gouveia, Z., Perez, F., & Walter, T. (2020, April). Experimentally-generated ground truth for detecting lymphocytes in an image-based immunotherapy screen. In 2020 IEEE 17th International Symposium on Biomedical Imaging (ISBI 2020). IEEE.

Boyd, J. C., Pinheiro, A., Del Nery, E., Reyal, F., & Walter, T. (2019). Domain-invariant features for mechanism of action prediction in a multi-cell-line drug screen. Bioinformatics.

Naylor, P., Boyd, J., Lae, M., Reyal, F., Walter, T. (2019, April). Predicting Residual Cancer Burden in a Triple Negative Breast Cancer cohort. In 2019 IEEE 16th International Symposium on Biomedical Imaging (ISBI 2019). IEEE.

Khalfaoui, B., Boyd, J., & Vert, J. P. (2019). Adaptive structured noise injection for shallow and deep neural networks.

Boyd, J., Pinhiero, A., Del Nery, E., Reyal, F., & Walter, T. (2018, April). Analysing double-strand breaks in cultured cells for drug screening applications by causal inference. In 2018 IEEE 15th International Symposium on Biomedical Imaging (ISBI 2018) (pp. 445-448). IEEE.

Boyd, J. (2015). Automatic Metadata Extraction-The High Energy Physics Use Case (Masters dissertation, Ecole Polytechnique, Lausanne).

TEACHING

(Nov, 2018) I presented the introductory workshop at MINES ParisTech course Deep Learning For Image Analysis

(Mar, 2018) I was teaching assistant during the workshops of Large-Scale Machine Learning and Data Mining at MINES ParisTech. I also created the workshop on stochastic gradient descent.

(Oct, 2017-Jan, 2018) I was teaching assistant for course Introduction to Machine Learning at CentraleSupélec in Autumn, 2017. Solved versions of labs I was responsible for creating are Intro/PCA, Convex Optimisation, and Support Vector Machines.

SKILLS

Computing PYTHON, C++, MATLAB

Language English (native), French (intermediate)

INTERESTS

I enjoy reading and writing about topics in computer science and mathematics. I also enjoy learning new technologies. Samples of my tinkering can be seen on my GitHub profile. I am a strong amateur chess player–challenge me at lichess.org/@/cruesli.