

# Emilien Dupont

emiliendupont.github.io

## EDUCATION

### UNIVERSITY OF OXFORD

#### PHD IN MACHINE LEARNING

Supervised by Yee Whye Teh  
& Arnaud Doucet

Funded by Google DeepMind  
2018-21 | Oxford, UK

### STANFORD UNIVERSITY

#### MS IN COMPUTATIONAL AND MATHEMATICAL ENGINEERING

GPA: 4.02

Teaching Assistant for ODEs  
2014-16 | Stanford, CA

### IMPERIAL COLLEGE LONDON

#### BSC IN THEORETICAL PHYSICS

Rank: 1st of 206 students

Grade: 87.2%

2010-14 | London, UK

## COURSEWORK

Deep Learning • Machine Learning •  
AI • Reinforcement Learning • Linear  
Algebra • Statistics • Convex  
Optimization • Information Theory •  
Complex Analysis • Group Theory •  
Discrete Math and Algorithms

## SKILLS

### PROGRAMMING

Experienced

Python • C++ • Matlab

Familiar

Scala (Spark) • JavaScript

### FRAMEWORKS

Deep Learning

PyTorch • Keras • Tensorflow

Visualization

d3 • plotly

### LANGUAGES

Fluent

Danish • French • English

## LINKS

emiliendupont.github.io

github.com/EmilienDupont

bl.ocks.org/EmilienDupont

linkedin.com/in/emiliendupont

scholar.google.com/EmilienDupont

## EXPERIENCE

### SCHLUMBERGER | MACHINE LEARNING SCIENTIST

June 2016 – July 2018 | Menlo Park, CA

- Created, implemented and deployed machine learning algorithms to solve problems in time series, vision, NLP and geology, improving state of the art for several tasks
- Research in unsupervised deep learning with a focus on deep generative models and learning interpretable representations

### GUROBI OPTIMIZATION | SOFTWARE ENGINEERING INTERN

June – Aug 2015 | Palo Alto, CA

- Researched, formulated and solved integer optimization models for a wide area of industry applications including energy, telecom and medicine
- Developed interactive visual web apps (**d3**, **Python**) to easily modify and solve complex optimization models

## PUBLICATIONS

### Learning Disentangled Joint Continuous and Discrete Representations

E. Dupont, NIPS 2018

### Generating Realistic Geology Conditioned on Physical Measurements with GANs

E. Dupont, T. Zhang, P. Tilke, L. Liang, W. Bailey, ICML 2018 TADGM Workshop

### Proabilistic Semantic Inpainting with Pixel Constrained CNNs

E. Dupont, S. Suresha, Under Review AISTATS 2019

## PROJECTS

### Mathematics and Data Visualizations

Created **d3 visualizations** of various concepts in maths and data such as **random walks**, gradient based **optimization**, **earthquake** time lapses and many more.

### Open source Deep Learning paper implementations

Implemented algorithms from various papers including **WGAN GP**, **InfoGAN** and **Concrete VAE** in **Pytorch**, **Keras**, **Tensorflow**.

## AWARDS

### Google DeepMind Scholarship 2018

PhD funding, 150,000 USD

### Schlumberger Out of the Ordinary Award 2018

Award for extraordinary technical achievements

### Digital Forum Innovation Award 2017

Schlumberger award for most innovative project among 300+ submissions

### Schlumberger AI Leader 2016

Elected as leader of the 1000+ AI community within Schlumberger

### Governor's Prize 2014

Ranked 1st of 206 students in Physics at Imperial College London

## INVITED TALKS

**Deep Learning for Prognostics and Health Management Tutorial**, Prognostics and Health Management Conference, 2017

**Deep Learning Applications Panel**, Prognostics and Health Management Conference, 2017