

# LOÏC COYLE

## Nuclear & Software Engineer

@ loic.coyle@hotmail.fr

+33 6 48 09 24 59

British, Irish

22/07/1995

github.com/loiccoyle

linkedin.com/in/loiccoyle

## WORK EXPERIENCE

### Researcher

#### EPFL/CERN

2019 – 2024

Geneva, Switzerland

- Using Machine Learning techniques to model, minimise and improve the understanding of losses occurring in the LHC.
- Developed a number of Machine Learning models targeting various aspects of the Large Hadron Collider.
- Developed purpose built, open-source, python tooling to facilitate data fetching, processing and visualisation.

### Master's Research Project

#### EPFL/CERN

Feb 2018 – March 2019

Geneva, Switzerland

- Analysis of LHC experimental data to further the understanding of particle losses and develop models of the LHC using both statistical analysis and Machine Learning techniques.

### Internship

#### Culham Center For Fusion Energy

May 2017 – August 2017

Culham, UK

- Combined a variety of simulation software such as GEF, Talys and Geant4 using custom written python tooling to generate nuclear reaction datasets.

## EDUCATION

### Reactor Physics and Nuclear Engineering Degree

#### Grenoble Institute of Technology - Phelma

2015 – 2018

Grenoble, France

- Includes an ERASMUS student exchange with the Ecole Polytechnique Fédérale de Lausanne in Switzerland.

### Bachelor's in General Engineering Degree

#### Grenoble Institute of Technology - Phelma

2015 – 2016

Grenoble, France

### Classes Préparatoires - Mathematics & Physics

#### Lycée Vauvenargues

2013 – 2015

Aix-en-Provence, France

- Two years of intensive undergraduate program preparing for the national entry exams of graduate schools of engineering.

## SKILLS

Python Typescript Rust C/C++  
SQL & DB Design Latex React Qt  
git Docker Linux Front-End Dev.  
Back-End Dev. Data Science  
Data Visualisation Machine Learning

## SOFT SKILLS

Rigour Autonomy Result Oriented  
Active Listening Analytical Thinking  
Scientific Communication Team Spirit  
Independent Learner Curiosity

## LANGUAGES

English

French

German

Arabic



## EXTRA DIPLOMAS

- University of Cambridge: Certificate of Proficiency in English
- University of Cambridge CAE: Certificate in Advanced English

## EXTRA TRAINING

### US Particle Accelerator School

Jan 25 – Feb 19 2021 Remote

- Accelerator and Beam Physics.

### Cern Accelerator School

Nov 11 – 23 2018 Thessaloniki, Greece

- Numerical Methods for Analysis, Design and Modelling of Particle Accelerators.

## INTERESTS

- Personal projects in software development, web development, digital imagery.
- Chess, music, piano.
- Travelling & discovering different cultures and countries.
- Snowboarding, hiking and climbing.

## REFERENCES

Available on request.