## Philip Labrum

# Dual Citizenship US & UK |

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#### Education

#### HARVARD UNIVERSITY

Cambridge, MA

(Leave of Absence, Fall 2020) Expected gr A.B. Candidate in Computer Science on the Mind Brain Behaviour track, Minor in Physics. GPA 3.5

**Expected graduation date: December 2021** 

**Relevant Coursework:** Machine Learning, Datasets and Algorithms, Computer Graphics, Engineering Quantum Mechanics, Statistics, Linear Algebra

### HBX | HARVARD BUSINESS SCHOOL

**June 2020 – August 2020** 

Credential of readiness in Business Analytics, Economics for Managers, and Financial Accounting.

ETON COLLEGE

Windsor, England

Awarded 11 A\* at GCSE. A Level Results: Maths: A, Chemistry: A, Physics: B

**September 2012 – July 2017** 

Winner of the Mosely prize for Physics research, Head of Theatre, House Captain, Head of the Astronomy Society.

## **Projects**

**Cognitive and Computational Neuroscience Thesis**: My thesis research is on constructing reinforcement learning models based on human exploration heuristics through the Gershman Lab [2021].

**Quantum Computing Collaboration:** Started a joint-university project group with team-members at Harvard, MIT, EPFL, and UC Davis. We launched a virtual talk series on the applications of quantum computing. Starting with the Finance sector with guests from JP Morgan Chase, Goldman Sachs, and the MIT Faculty [2020].

**Quantum Machine Learning**: Using Qiskit and Pyquil we built a distance-based classifier and ran it on both IBM and Rigetti quantum computers, with the goal of comparing results across the hardware [2019].

## **Experience**

### **THE CODING SCHOOL (Qubit by Qubit)**

Cambridge, MA

Teaching Assistant & Curriculum Developer

September 2020 - Present

- Currently responsible for 3 lab sections in a 7500 student virtual class on Quantum Computing backed by IBM.
- Each lab section ranges from 50 400 students, with abilities ranging from high school level to graduate students.
- Created all coding and quiz assignments as well as advising on overall course direction and content during the curriculum development meetings.

#### SHEPHERD THERAPEUTICS

Boston, MA

# Computational Research Consultant

May 2019 - August 2019

- Designed and built a Django based web-app that allowed the lab team to upload in-vitro drug results to an AWS instance and receive automated efficacy predictions from a machine learning analysis.
- Performed a mapping analysis connecting the clue.io gene expression dataset, to the Broad Institute genetic oncogene dataset. This provided a ranking highlighting the most promising drug candidates across multiple rare cancers.

# RP INTERNATIONAL

London, England

Researcher

May 2018 – July 2018

- Worked in the telecommunications sector and with SaaS CRM companies to source technical specialists for international projects.
- Used CRM database analytics to identify high sector turnover rates and therefore identify future projects and clients.

## **Leadership and Activities**

President of the Harvard Quantum Computing Association

Cambridge, MA January 2021 – Present

- Led QCA's education program, teaching introductory computer science, quantum mechanics and quantum algorithms.
- Started the QCA project initiative using resources from corporate sponsors (IBM and Rigetti).

## **Senior Counsellor** *for Youth Lead the Change (YLC)*

Cambridge, MA January 2019 – Present

• Instructed high school students about leadership skills and social change projects over four conferences in New Delhi, India and Boston MA.

### **Cadet Sargent** in the Combined Cadet Force (Royal Air Force)

*England & Cyprus* **July 2016 – July 2017** 

• Trained with Princess of Wales' Royal Regiment in Dhekelia and the 34<sup>th</sup> Squadron in RAF Akrotiri. Received Gold Colonel H. Jones award for leadership.

#### **Skills**

Programming Languages: Python, C++, HTML/CSS, SQL, OCaml.

**Software:** Django, Flask, Heroku, QisKit, pyQuil, Solidworks, Fusion 360.