

Sandro Moszczynski

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I have recently completed my Masters degree in Quantum Technologies at UCL. I am looking for positions relating to quantum technologies, machine learning, and programming in general within professional environments.

Education

MSc in Quantum Technologies

University College London,

Merit

Sep 2019 – Sep 2020

Key modules: Quantum Communication, Machine Learning with Big Data, Research with C++, Research with Python.

Project focused on applying machine learning techniques to quantum error correction, specifically on working with topological codes.

External Advisor; Dr. Brian Antao, CEO Tundra Systems.

MSc in Physics

University of Sussex,

Merit

Sep 2014– Sep 2015

Key modules: Quantum Field Theory, Symmetries in Particle Physics, Data Analysis Techniques.

My dissertation took the premise of Supersymmetry and simplified the concepts to a single U(1) gauge, estimates of particle content were then made. Subjects taken were mostly theoretical with the exception of Data Analysis Techniques.

Advisor; Dr. Sebastian Jaeger.

BSc in Physics

University of Sussex,

Second Class Honours

Sep 2011– Sep 2014

Key modules: Condensed State Physics, Advanced Condensed state Physics, Scicomp (Python and Matlab).

The BSc in Physics covered both experimental and theoretical topics with three years of laboratory work.

Working Experience

Science Technician

Oasis Academy arena

London

Sep 2018–Sep 2019

I was employed as the sole technician in this secondary school. My responsibilities included ensuring all experiments have risk assessments and all stock is safely stored, including radioactive materials. I also delivered experiments for all three sciences and helped instruct pupils and teachers in how to best use the equipment we have.

Physics Technician

Harris Academy Beckenham

London

Sep 2016– Sep 2018

I was employed as a technician at this secondary school. My duties revolved around preparing practicals and being the physics specialist in the school. This requires I set up new practicals and explain physical problems to the teachers as well as setting up clubs involving science and engineering.

Commis Chef

The Queens Head (Fullers)

London

May-Sep 2016

Worked at a busy 400 seater gastro pub. My duties involved preparing for my station and keeping it tidy. Working with the other chefs in a tight knit team and making sure service ran smoothly.

President of Physics Society

Sussex University

Brighton

2012–2015

The physics society at Sussex (QSoc) was widely praised for helping students interact with each other after I took over. We organised social events and LAN parties which helped make the department a close-knit community.

Secretary of DJC

Sussex University

Brighton

2011–2014

The Departmental Joint Committee (DJC) is the regular meeting of the department heads with the elected student body representatives. I took minutes and organised rooms and meeting times as well as kept both lecturers and students updated on their designated tasks. I had a large part in organising the annual physics ball each year which seats over 150 people.

Relevant Skills

Physical Understanding:	<ul style="list-style-type: none">○ Solid State Physics (Theoretical and Experimental)○ Atom and Photon Physics○ Quantum Computation and Communication○ Quantum Error Correction, using topological modelling○ Quantum field theory○ Supersymmetry
Mathematical Analysis:	<ul style="list-style-type: none">○ Group Theory○ Topological Lattices○ Research Statistics○ Tensor Calculus
Laboratory Experience:	<ul style="list-style-type: none">○ Three years working as a Technician○ Three years undergraduate experience
Programming:	<ul style="list-style-type: none">○ Python (Object Orientated Programming, High Performance Computing, Tensorflow, 2-3 years experience)○ C++ (Object Orientated Programming, OpenMP, 1 year of experience)○ Machine Learning in C++ and Python○ Matlab during undergraduate○ GitHub and general project sharing experience
Teamwork:	<ul style="list-style-type: none">○ Worked professionally for 3 years in schools as part of science departments, both alone and as a group of technicians○ Worked in tight knit group as a Chef
Languages:	<ul style="list-style-type: none">○ English fluent (native)○ Polish conversationally fluent○ Open to learning new languages
Leadership & Organisation:	<ul style="list-style-type: none">○ Three years as President of Physics Society○ Organised school trips and helped with organisation of science department as the sole technician.○ Ran after school clubs at both schools, science club and engineering club○ Ran Physics Society at Sussex for three years○ Was a member of student Council representing Physics at Sussex for three years○ Organised three physics balls at Sussex, widely attended by >150 people
Health And Safety:	<ul style="list-style-type: none">○ Created Science, Radiation and Food tech health and safety protocols at Oasis and Food Tech at Harris Academies○ Extensive experience writing risks assessments○ Held first aid certificates (2016-2019) from FAA

Personal Interests

Cooking:	I have spent time in a professional kitchen and still have a real passion for producing delicious food.
Sports:	I was on my prep school Cricket team, my high-school Basketball team and took part in a 5 a side Football team at university. I also enjoy Squash whenever I can.
Gaming:	I enjoy playing games in my free time, mostly single player experiences or co-op games that I can play with my girlfriend, and more recently board games with friends.
Craft Projects:	I like working with my hand and have created stands for my electronics as well as repainted a number of them. I have also built numerous computers from scratch both for myself and others, some including water cooling.