

# Benjamin Stratton

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🌐 Ben Stratton

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An enthusiastic and ambitious aspiring scientist. Demonstrated diligence and commitment throughout my career and hence developed as a promising physicist, as shown by consistent academic achievements. Conducted research within the field of quantum information theory, written software for research purposes and excelled in taught modules in advance quantum mechanics, quantum computation and quantum information theory, among others. Currently studying for a PhD at the University of Bristol within the quantum information theory group as a member of the Quantum Engineering Centre for Doctoral Training.

## EDUCATION

### University of Bristol

**Bristol**

*Quantum Engineering Centre for Doctoral Training (QE-CDT)*

*September 2021 - Current*

- Fully funded by the EPSRC for 4 years (1 MRes year + 3 PhD years)
- Undertook courses in the preliminary year in Quantum Light and Matter (89%), Applied Quantum Theory (pass), Quantum Systems Engineering (78%) and Nano-fabrication (89%).

### University of Bristol

**Bristol**

*Masters of Science (MSci) in Physics*

*September 2016 - July 2020*

- Awarded degree with first class honours (Average 77%)
  - Units Include: Advance Quantum Mechanics (87%), Quantum Information Theory (78%), Quantum Computation (80%), Advance Computational Physics (78%), General Relativity (82%).

### Okehampton College

**Okehampton**

*GCSE and A-levels*

*2011 - 2016*

- **A-levels:** Mathematics A\*, Further Mathematics A, Physics A, Chemistry A (AS only)
- **GCSEs:** 6 A\*, 3A. Including Mathematics and Physics at A\*.

## WORK EXPERIENCE

### Creator Fund

**Remote**

*Venture Fellow*

*September 2023 - Current*

- Sourcing deals, assessing technology and performing due diligence for the largest student lead venture capital firm in Europe.
- Focusing on deep tech deals with a particularly emphasis on quantum technologies.

### The University of Bristol

**Bristol**

*Undergraduate Tutor*

*September 2021 - Current*

- Improving my skills in communicating complex information by educating undergraduates on topics in the foundations of physics.

### On Call Africa

**Livingstone, Zambia**

*Volunteer Coordinator*

*Jan 2021 - August 2021*

- Provided technical and logistical support to volunteer doctors running health clinics in rural areas.
- Succeeded in designing and creating an interactive map using javascript for marketing and logistics.
- Gained experience in team management by coordinating teams collecting data in remote locations, often off grid for weeks at a time.

## EXAMPLE RESEARCH PROJECTS

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### The University of Bristol

**Bristol**

*Dynamical Resource Theory of Informational Non-equilibrium Preservability*

*On Going*

- Developed a framework for comparing the ability of quantum channels to preserve informational non-equilibrium (purity).
- Applied the results to thermodynamics, high-level noise models and classical communication.

### The University of Bristol

**Bristol**

*Software Tools for Integrated Photonic Spatial Filter Design*

*January 2022 - April 2023*

- Developed a fast and efficient ray tracer for use in the design of spatial filters used to scatter excess pump light in integrated photonic circuits.
- Acquired knowledge in both just-in-time compilation and parallelisation.
- Created the foundations of a design toolkit using the ray tracer by testing the effectiveness of the filters for parameters such as length, width, size and density.

### DESY Summer School

**Hamburg, Germany**

*Implementing Remote Control of a Spectrometer on a Laser Heating Table. June - September 2019*

- Wrote the backend and frontend code for the remote control of a spectrometer used for measuring temperature of samples on a laser heating table.
- Extensively used python and learnt other hardware specific macrolanguages.

## LEADERSHIP AND EXTRACURRICULAR ACTIVITIES

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### Careers in Quantum, 2024

**Bristol**

*Event Organiser*

*June 2023 - Current*

- Co-organising Careers in Quantum, the largest student led quantum careers fair in the UK.

### National Quantum Computing Centre Hackathon 2023

**Birmingham**

*1st Place*

*July 2023*

- Successfully understood the Variational Quantum Linear Solver algorithm and ran it on multiple different quantum hardwares and simulators to assess its performance, earning my team 1st place in the competition.

### Chaos, Bristol Physics Society

**Bristol**

*Vice-President*

*June 2019 - June 2020*

- Co-managed the award-winning Chaos committee of 18 individuals to run talks, trips and socials for our 700 members.
- Under my leadership Chaos won the 'committee excellence' award at the National Society and Volunteering awards as well as 'best academic society' at the Bristol SU society awards.
- Instrumental in the implementation of 'cup-less' Fridays into our society run coffee shop as part of my 3-year plan to improve sustainability.

*Non-Portfolio Officer*

*June 2018 - June 2019*

- Actively sought out committee members from across all parts of the society who needed me to assist them in their roles.

### Bristol Consulting Society

**Bristol**

*Treasurer*

*June 2018 - June 2019*

- Coordinated the society's finances, formulated the budget and wrote funding applications.
- Orchestrated CV clinics to improve society members chances of successful job applications.

## REFERENCES

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**Dr Paul Skrzypczyk**, Associate Professor, H.H.Wills Physics Laboratory, The University of Bristol.  
*PhD Supervisor.* paul.skrzypczyk@bristol.ac.uk

**Dr Jorge Barreto**, Senior Lecturer, Department of Electrical & Electronic Engineering, The University of Bristol. *QE-CDT Director.* G.Barreto@bristol.ac.uk.

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