

# Dr. Tom Brooks

Software engineer | Solution architect | Researcher

Passionate about climate change, machine learning and biotech.

**Phone** (+44) 7939 052 907  
**Email** tom.g.r.brooks@gmail.com  
**Website** tom-brooks.com  
**GitHub** tgrbrooks  
**LinkedIn** tgrbrooks

## EXPERIENCE

### Applied Blockchain, London — Software engineer

September 2020 - Present

- Technical lead of the Silent Data confidential computing platform.
- Architected and led the development of a blockchain invoice financing solution.
- Consult on other projects with external clients and the CEO.
- Produce whitepapers and technical reports. Regularly present work internally and externally.
- Using Agile methodologies.

### University of Sheffield, Sheffield — Postdoctoral researcher

May 2020 - September 2020

- Simulation and statistical analysis to explore using particle physics for nuclear non-proliferation.

### Rutherford Appleton Laboratory, Oxford — Software engineer intern

July 2015 - September 2015

- Integrated scientific Python packages with a framework for high performance computing and materials science data visualisation.

## EDUCATION

### University of Sheffield — PhD (particle physics)

September 2016 - April 2020

- Developed algorithms for topological feature selection in particle interactions.
- Used high performance computing for modeling and simulation.

### University of Manchester — MPhys physics (First - 84%)

September 2012 - June 2016

- Applied and analysed machine learning techniques for pattern recognition in particle interaction images.

## PROJECTS

### Algal Data Analyser (ADA)

- Created and maintain a Python and Qt based growth curve analysis software package used in leading microalgae biology labs.
- Co-authored a paper on the software with academics in the field.

## TECHNOLOGIES

**Languages:** C/C++ (7 years),  
Python (6 years),  
Bash (5 years), TypeScript (2 years)  
**DevOps:** Docker (4 years),  
CircleCI (2 years), Azure (2 years),  
Kubernetes (1 year)  
**Frameworks:** React (2 years),  
NodeJS (2 years), NextJS (1 year)  
**OS:** Linux (7 years), Mac (4 years)  
**Source control:** Git (6 years),  
GitHub (3 years)  
**Databases:** PostgreSQL (2 years),  
TypeORM (2 years)  
**API:** REST (2 years),  
gRPC (2 years), JSON-RPC (1 year)  
**Specialist:** Intel SGX (2 years),  
Tensorflow (1 year), SciPy (1 year)  
**Testing:** Jest (2 years),  
GoogleTest (2 years)

## AWARDS

### Best Digital Identity Solution

Open Banking Expo, 2021

As part of the Silent Data development team.

### Visiting Research Scholarship

Fermilab, 2018

Funding to perform research at one of the top national laboratories in the US.

### Hatfield-Heginbottom Scholarship

University of Manchester, 2015

Best performing student in the third year of study.

### Research Internship

University of Manchester, 2015

Funding for a research project to classify particle interactions with machine learning.