

# JOSEPH WESTON

## Scientific Software Developer

📍 Vancouver, Canada    @ joseph@weston.cloud    📄 github.com/jbweston    in linkedin.com/in/jbostonweston  
🌐 https://joseph.weston.cloud



## EXPERIENCE

### Software Development Engineer

#### Microsoft (contracted via Aquent LLC)

📅 Feb 2020 – present    📍 Vancouver, CA

- Developing bespoke software libraries and tools for simulating topological qubits
- Scaling code and infrastructure to enable massive parallel computations

### Scientific Software Developer

#### Qutech

📅 Oct 2016 – Jan 2020    📍 Delft, NL

- Furthered development of the quantum transport software Kwant, which has been used in 400+ research projects around the world
- Led the design and implementation of open source software for science and education
- Mentored colleagues on software development best practices via code review and pair-programming sessions
- Instructed courses on, and produced teaching materials for, scientific programming in Python at the Casimir research school

### PhD Researcher

#### Commissariat à l'Energie Atomique (CEA)

📅 Oct 2013– Oct 2016    📍 Grenoble, FR

- Designed and implemented a linearly scaling algorithm for solving time-dependent quantum transport problems, improving on the polynomial scaling of the previous state of the art
- (Co-)Authored 6 publications in top-tier scientific journals

## EDUCATION

### Ph.D. Theoretical Physics

#### Université Grenoble Alpes

📅 Oct 2013 – Oct 2016

Thesis: Numerical Methods for Time-Resolved Quantum Nanoelectronics  
Awarded the Springer prize for outstanding PhD theses

### MSci. Physics with a Year in Europe

#### Imperial College London

📅 Sept 2008 – June 2012

First class honors (average grade 82%)

## TECH SKILLS

Python    C    C++    Haskell

Git    Bash    Docker    Ansible

Code Review    Pair Programming

## OPEN SOURCE

### Kwant 🏆

#### Library for nanoelectronics simulations

Used around the world in 400+ research projects

### Adaptive 🔄

#### Framework for parallel active learning

### Zesje 🏆

#### SaaS platform for grading exams

Used in 50+ courses at Delft University of Technology

### jupyter-sphinx 🔄

#### Run code snippets with Jupyter when building documentation

### Nord 🔄

#### CLI and Python client for Nord VPN

## LANGUAGES

English    *Native Proficiency*  
French    *Full Professional Proficiency*  
Portuguese    *Limited Working Proficiency*

## SOFT SKILLS

Detail-Oriented    Industrious

Enthusiastic    Quick Learner