



**Tim Child**  
Full Stack Developer | PhD Physics

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## Personal Statement

I build things — From the hardware and electronics to convert an SUV into a 4x4, to the lab equipment and analysis software required to increase the rate of data acquisition and analysis by 1000x, to my most recent project: A full stack web application enables creating bespoke model-agnostic agentic workflows with cyclic graph processing utilizing custom retrieval augmentation and data pipelines.

I'm looking for challenging work with good colleagues.

## Experience

**Full Stack Developer**                      AthenaInstruments                      2024 – 2025

Developed a full web application from scratch following [modern software development practices]. My work involved creating data pipelines, integrating third party APIs, working with cutting edge generative AI technologies, refactoring and structuring a medium sized (~50 K lines) code base, automation of testing, developing continuous integration and deployment workflows, database management and migrations, provisioning cloud infrastructure, and more. The main tech stack was centered around the python ecosystem.

**Researcher**                                      Stewart Blusson Quantum                      2018 – 2024  
Matter Institute, UBC, Canada

I built custom hardware and software for acquiring and analyzing data (increasing throughput by ~1000x) as part of my development of an innovative measurement technique for nanoscale circuits that exhibit exotic quantum behaviors. Responsibilities also included designing and fabricating quantum qubit devices using state-of-the art fabrication facilities, and commissioning, maintaining, and upgrading dilution refrigerators. I published papers in respected journals including Physical Review Letters.

**Teacher**    University College London                      2016 – 2017

Obtained a masters level teaching degree specializing in science education, including teaching in multiple London schools.

**Private Tutor**                                      London    2012 – 2018

Tutored students aged 4 - 18+ in math and science to fund my undergraduate studies.

## Education

- **PhD Physics**, University of British Columbia, QuEST Scholarship                      2018 – 2024
- **PGCE Science**, University College London, IOP Scholarship                      2016 – 2017
- **BSc Physics**, Imperial College London, First Class Honors                      2011 – 2014

## Languages

- Python
- SQL
- Bash
- JavaScript
- Lua
- Go
- C++
- Igor (C like Matlab)
- ...

## Technologies

- Docker (+compose)
- Git
- GitHub Actions
- Flask + Dash
- FastAPI + Reflex
- UV (+ poetry)
- PostgreSQL
- Redis
- Qdrant
- Digital Ocean
- Cloudflare
- LangGraph + LangChain
- ...

## Personal and Interests

- US/UK citizen
- Open work permit in Canada (PR pending)
- Arctic expeditions
- Caving, skiing, ice climbing