Devin Short

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PROFILE

Curious problem solver interested in developing hardware with a collaborative team. 15 years in academic R&D with graduate degrees in nuclear chemistry and history of science. Developed high voltage, radio frequency, laser, control, and signal processing instruments. Experience with multiphysics modeling, database development. Expert teacher and communicator with lifelong experience in shops and labs.

EDUCATION

PhD, History of Science | University of Washington, Seattle WA **2018 – Present**
Graduate Certificate in Climate Science | University of Washington, Seattle WA **2018 – Present**
Currently writing a dissertation on the history of computer modeling in climate science.

- Developed graph database system for primary source research and network analysis in social science
- Five years teaching undergraduate courses in US and Latin American history, history of science
- Passed PhD exam covering over 250 books and articles in history, philosophy, and sociology
- American Meteorological Society Graduate Fellowship in the History of Science (2022)

MSc, Nuclear Chemistry | Simon Fraser University, Burnaby BC **2014 – 2018**

- Commissioned mass spectrometer for isobar separation at TRIUMF, Canada's particle accelerator center
- Wrote simulation of the spectrometer, including Monte Carlo model, to characterize performance
- Participated in some of the most precise atomic mass measurements ever taken
- Acted as technical liaison between research groups in Germany and Canada
- Simon Fraser University Chemistry Alumni Graduate Scholarship (2016)

BSc, Physics | University of Washington, Seattle WA **2007-2012**

- US Department of Energy Spring Undergraduate Laboratory Internship (2010)

EXPERIENCE

Intern, TITAN Group | TRIUMF, Vancouver BC **2013 – 2014**

- Built the mass spectrometer I commissioned for my master's degree. Lived in Giessen, Germany.

Student Hourly | UW Center for Experimental Nuclear Physics and Astrophysics **2008 – 2012**

- Developed particle accelerator and radiation spectroscopy instruments
- Implemented Monte Carlo simulations of radiation detectors to analyze experimental data
- Completed machine shop training course and performed basic machining

Intern | Lawrence Berkeley National Laboratory, Berkeley CA **Spring 2010**

- Designed infrared laser amplifier for ultrafast pump-probe spectroscopy in materials science

SUMMARY OF PUBLICATIONS

Complete list available at shortorian.github.io/publications

- Co-authored 12 journal articles, sole author of one magazine article and two book reviews
- Nine presentations at regional, national, and international conferences

SKILLS

- Advanced Python. Experience with R, Lua, Mathematica. Limited JavaScript, FORTRAN, SQL, C++.
- Advanced modeling with SciPy, COMSOL, SIMION. Limited MATLAB, LabVIEW.
- Experience with Inventor, Illustrator, LaTeX, Word, Excel, PowerPoint. Limited AutoCAD.
- Communication, teaching, public speaking, project management, data visualization
- Able to work with glove boxes, clean rooms, cryogenics, high voltage, radiation fields, and class 4 lasers
- Research and development, prototyping, testing, precision measurement