

Sustainable Software and Reproducible Research

Eli Chadwick

The Carpentries; Software Sustainability Institute



About Me

- 2018: MSci Physics from University of Birmingham
 - Final project in computational astrophysics
- 2018-2022: Science and Technology Facilities Council (STFC)
 - 2-year Scientific Computing graduate scheme
 - Permanent project on muon spectroscopy simulations
 - Delivered training workshops for early career staff (graduates, apprentices)
- 2021: Software Sustainability Institute Fellowship (focus: training and accessibility)
- 2023: The Carpentries - IT Developer



**THE
CARPENTRIES**



Why This Path?

- I do not like doing research enough to do a PhD
- But I do like writing scientific code
- And I want to remain close to research and academia

My ideal job: *writing code that helps other people to do their research*

This has a name: **Research Software Engineering**

Why This Path?

- On the STFC graduate scheme, I learned many different approaches to software engineering and testing
- These would have been useful during my degree, but they were never mentioned during my programming modules
- Many graduates have *great coding ability, but minimal knowledge of best practices*
- Led workshops for new starters at STFC to build this knowledge, and supported learners to become instructors in later years

This has a name too: **Community of Practice**



**THE
CARPENTRIES**

