

Dear Arfon and the JOSS editorial team,

*[statement of interest + link to pass JOSS review]*

I would like to apply for the role of JOSS Topic Editor. Last year I published my software project [effmass](#) with JOSS and gained a lot from the experience, as it encouraged me to improve my understanding of documentation, testing and package management. As an author and reviewer for JOSS (review link [here](#)) I found the open, discussion-based review process more friendly and accessible than the model typically used in other journals. I also suspect that the quality of reviews is higher when done openly. JOSS incentivises reproducible science, something which is often lacking in research journals: I recognise the importance of JOSS and want to support it's development.

*[specialist subject domains / research topics]*

I am in the final year of my PhD in computational materials science. I use high performance computing to calculate the properties of materials on an atomic scale, with a focus on materials used for energy generation and storage. The hope is that if we can understand the behaviour of atoms and electrons in existing materials, we will be able to design new materials with target properties - for example, solar cell materials with higher light-to-electricity conversion efficiency, which is the current subject of [my research](#). My earlier academic training focused on theoretical condensed matter physics and renewable energy (course link [here](#)).

I am a qualified teacher and have worked as a mathematics teacher in a variety of contexts: with adults in prison, with children in primary schools and with the general public in local cafes. I enjoy designing and delivering lessons, and consider myself to be an enthusiastic teacher with a knack for getting people excited about what can sometimes be considered the mundane! I am a qualified software carpentry instructor and have taught the git, bash and Python workshops. I note that some of your editors are on both the JOSS and JOSE boards. If JOSE was also in need of future editorial support I believe I would have something to contribute.

*[A summary of your experience with open source software]*

I have drank the open source Kool-Aid, as the saying goes. I publish all of my code through Github and have very recently established a workflow so that my talk slides and applications are available online - I see open source software as a key component within open science.

My calculations generate large amounts of data, and much of my time is spent writing code which will convert these tables of numbers into meaningful physics (eg: [effmass](#) Python package). I also share smaller scripts (eg: [vesta\\_vectors.py](#)) and use Jupyter Notebooks as Supplementary Information to my research papers (eg: [hot-carrier-cooling](#)). I make extensive use of the Python scientific stack (NumPy, SciPy, Matplotlib, pandas, Jupyter, pytest) and open-source software particular to my domain, for example [phono3py](#) which is written in Python, extended in C and parallelised with OpenMP. I have some experience using Julia; one of my aims this year is to become more fluent in this language.

I see myself as an advocate for best practice in research software, whilst still acknowledging that I have much to learn about what that means in practice. I am a committee member of the [Imperial College London Research Software Community](#), and recently organised a Research Software in Materials Science event at which I gave a talk encouraging people to submit their software to JOSS - "Publishing your Software Package with The Journal of Open Source Software" (slides [here](#)). I am currently applying for funding so that I can extend this into a one day workshop - "Get your code publication ready" (the beginnings of a workshop website is [here](#)).

[My CV](#) and more information about my work is available at [lucydot.github.io](https://lucydot.github.io).

Thank-you for considering my application -

Regards,

Lucy Whalley