

THE UNIVERSITY OF BRITISH COLUMBIA



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July 31, 2012

Josh Greenberg
Alfred P. Sloan Foundation
630 Fifth Avenue
Suite 2550
New York, NY, 10111

Dear Mr. Greenberg:

As a researcher and instructor working at the boundary between computer science, mathematics, science and engineering, I am delighted to support continued development of the Software Carpentry (SWC) program designed to help scientists—and I hope researchers in engineering—manage their use of software.

I organized a SWC bootcamp with Greg Wilson at UBC in May 2012, supported by last year's project. After securing a room for 40 students, I was exchanging emails with Greg about how we might advertise the workshop to students at other universities within a day's drive so as to ensure enough participants to make it worth his trip west. To our delight that was not necessary, since we had over 50 registrants *just from the faculty of Science at UBC* within the first three days. Without any further advertising and despite some attrition due to the four months between initial registration and the actual workshop, we still filled the room on the first day and had only a handful of empty seats on the second. In the weeks after the workshop concluded I was traveling extensively, and I did not follow up on scheduling an additional workshop. To my surprise another researcher at UBC was enthusiastic enough that by the time I returned a workshop had been scheduled for October 2012.

Although only anecdotal, this result leads me to believe that there is an enormous unfilled demand for additional software management skills among the population of researchers at UBC when those skills are delivered in a short bootcamp style. I expect that similar demand exists at many other universities.

I am also enthusiastic about some of the improvements proposed in this next round of development:

- Facilitating peer-to-peer mentoring: Many of the participants in the UBC bootcamp came from Mathematics and Earth & Ocean Sciences (somewhat coincidental; since I happened to know exactly who to contact in those departments, the email advertisement went out to them first). These students work in the same or nearby labs on similar projects; if they could cooperate effectively during the post-bootcamp phase of instruction we could see a positive feedback loop of learning and adoption among these students and their labmates.
- Advanced / discipline specific versions of the bootcamp: The last quarter of the bootcamp at UBC was devoted to an introduction to databases. While this material is very useful for students in the life sciences, our unintentionally Math and EOS oriented audience would likely have been better served by a session on numerical computing support in Python or verification of numerical codes through convergence testing. The proposal does not include these particular sessions, but

the process of developing any specialized sessions and then selecting and tuning the available material for a given audience will allow the SWC team to provide guidance to others who might want to contribute specialized sessions for bootcamps and/or online tutorials.

In summary, I whole-heartedly endorse continued work on the SWC program. I hope to contribute as an instructor to October's workshop at UBC, and then continue to offer workshops based on this material at UBC, other nearby universities, and conferences in my research discipline. I believe that these tools and skills will be more widely adopted by a wider range of scientists with further development and specialization, and I think Greg is the right person to spearhead that effort.

Sincerely yours,

A handwritten signature in blue ink, appearing to read 'Ian Mitchell', with a stylized, cursive script.

Ian Mitchell