Department of Mathematics
University of British Columbia

June 27, 2022

To Whom It May Concern,

Mayank Ghogale worked as a research intern in Dr. Schiebinger's lab, from November 1st, 2021 to June 30th, 2022.

During his time with us, he worked on a data analysis project in collaboration with researchers from Pittsburgh University (Dr. Fadi Lakkis' lab). The goal of the project was to investigate the memory capabilities of monocytes. His role in the project was to analyze a timecourse scRNA-seq dataset of monocytes in a mouse liver, using the Waddington OT model developed by Dr. Schiebinger in 2019. Mayank first followed the tutorials to learn about this complex model and then applied it to the new dataset. He also prepared results of the analyses, in the form of interactive notebooks (containing images and widgets) for the presentations to the collaborators and was dedicated to having them ready on time. He also conducted different experiments to find the right hyper-parameters for the model. Finally, he participated in the review of a new method for integrating scRNA-seq datasets together.

As his supervisor, I found that Mayank was motivated to work, and eager to learn about the underlying mathematics of the model, as well as the biological aspects of the application. He learned to collaborate on a software project using a versioning tool (Git), and was able to grasp the various development concepts it involves. He was also curious about the other models the lab had developed, and always showed interest in working on the next task.

Sincerely,

Matthieu Heitz
Post-doctoral Fellow
Department of Mathematics
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