Drasil On Boarding New Project Members

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April 29, 2024

Contents

This document describes the on boarding process for new members of the Drasil team. The new members could be summer students, Masters students, PhD students, etc. For those joining the Drasil team you can start many of these tasks in advance of officially starting, although there is no expectation that you do so.

Below you will find the following: a summary of your work colleagues, and practical information on repos, tools and initial tasks. Since this is a long document, I will highlight here the information items you should attend to first (details are provided in the body of the message):

- send Dr. Carette and me your GitHub username
- register for GitLab (if you haven't already done so)

The most important getting-started advice is to remind you of the importance of communication. We'll do our best to communicate our requirements and expectations. You should likewise do your best to communicate when you are confused, frustrated, bored etc. Our goal is to keep you busy with a fun and rewarding experience.

1 Introductions

In addition to Dr. Jacques Carette and Dr. Spencer Smith (smiths@mcmaster.ca), here is a list of the current (as of the date of generating this document) members of the Drasil team:

- Jason Balaci, PhD candidate
- Samuel Crawford, MASc candidate
- Jiaming (Levi) Shao, MEng candidate
- Mohammad Bilal, Summer research assistant
- Noah Cardoso, Summer research assistant
- Brandon Bosman, Summer research assistant
- Xinlu Yan, Mitacs research assistant (starts July 15)

2 Summer Assistant Practical Information

Start date: Monday, May 6, 2023

End date: Friday, Aug 23, 2023

Workspace: ITB/236. You will need a proximity card to access your office. You will need to go to JHE 216A (Engineering Support Services (The Hub)) to get your card. A deposit is required for the card. If there are any problems, please coordinate with the Departmental Administrator (Ms. Laurie LeBlanc). Once we get our summer work rhythm established, you can potentially work from home on some days, but please discuss this with Drs. Carette and Smith.

Hours: 35 hours per week, 7 hours per day (Monday to Friday) with a one-hour unpaid lunch. You can take a half-hour lunch if you prefer, but a lunch break is required. We will maintain a regular work day. There is some flexibility on the start time. Any time between 8:30 am and 9:30 am is fine. In some cases, you may need to alter your work schedule for personal reasons. This is fine, but we need to discuss the proposed alternatives.

Please use a spreadsheet to keep track of your hours and the tasks that you spend your time on. For the first week, please e-mail the spreadsheet to Drs. Smith and Carette at the end of each day. The purpose of communicating this information is to help advise and understand; it is not to "check up on you."

First meeting: To be determined (it may be in-person or on Teams (Rsch Stdnt Meeting Team))

Regular "all hands" meetings: To be determined (a mix of in-person and on Teams (Rsch Stdnt Meeting Team))

3 Repos

We use several repos for our work. I'll list them below roughly in order of importance. In some cases, you will need to create an account or access will have to be given. I'll list the specific access-related tasks in the next section.

3.1 GitHub

3.1.1 Drasil

- Drasil Repo
- public repo
- the source code and documentation for Drasil
- any code or documentation you write on Drasil will be here
- you cannot push to master
- all contributions will be done through pull requests
- this is the repo where you will be doing most of your work
- you will need to be added as a contributor

3.2 Drasil Generated Case Studies and Documentation

- Drasil Case Studies and Documentation
- not actually a repo, but generated from the Drasil repo
- the automated versions of the Drasil case studies are built frequently and pushed to this web-page
- the Haskell dependency graphs are also provided here
- the documentation for Drasil is available
- package dependency graphs are available at the bottom of this web page

3.3 GitLab (CAS server)

3.3.1 Publications

- Publications
- private (within CAS) repo
- bibliographic information (in BibTeX) for papers and other resources relevant to our project
- pdf versions of papers that are hard to find online
- when you create a bib file, look here (in the `References.bib` file) first to see if the bib data is already available
- if you find a new reference, please add it to the References.bib file, along with a pdf version, if you don't have a link to an online version
- citations should be named using the Author Year style. For one or two authors their last names are listed and then the year. For more than two authors, the first author's last name is listed followed by Et al.
- contributors can push to master
- you need to be added as a contributor to this repo

3.3.2 Software Engineering Course Notes:

- SE2AA4/CS2ME3 Course Notes
- public repo
- on some occasions, we may refer to some of the concepts or technology from software engineering; this repo might be referenced in those situations
- you cannot push, but you can do a pull request, if necessary

3.3.3 iii. Software Engineering for Science

- se4sc repo
- private repo
- resources
- grad student and undergrad student work
- paper drafts
- research proposal drafts
- any documents you write that aren't part of Drasil will be put in this repo
- contributors can push to master
- depending on your work you might not need this resource; we will let you know when it is relevant
- in case it is relevant, you will be added as a contributor to this repo

4 Initial Tasks

If you have questions or challenges while completing the steps below, please make a record of your challenge. We are always working to improve our onboarding instructions and contributor's guide. Please let us know of any problems with the documentation so that can address the problem in the future. There is a good chance we'll ask you to update the documentation, so the better your notes, the easier the task will be.

Once you get settled, you can begin with the tasks listed here. These tasks should be done in roughly the order listed. Some of the later tasks do not need to be done when you start (like learning LaTeX). They are tasks you can return to throughout the summer when you need something to do or when you are feeling like a change of pace.

1. Verify you can access all GitLab accounts on the CAS server. You can access GitLab at the sign in page. For CAS students, you can follow the instructions on the screen to create an account, if you haven't already.

For the nonCAS students, we'll work on getting you added by asking Derek (Sys Admin for CAS). Please let Dr. Smith know if you need us to request an account for you.

2. GitHub account. If you do not have one, please create one. Send your account username to Dr. Smith and Dr. Carette. Verify that you can access all of the GitHub repos listed above.

3. Consent to Provide Limited Personal Information about Highly Qualified Personnel (HQP) to NSERC. Dr. Smith will send a separate e-mail about this.

4. Connect with Drs. Carette and Smith over Linked-In

5. Familiarize yourself with Drasil, review the quick start guide and set up your new Drasil workspace. The relevant links are as follows:

   - wiki
   - wiki - what is Drasil
   - quick start
   - new workspace setup

   The last link is particularly practical and useful. You'll want to follow the new workspace setup instructions to have a sane build environment. If you have any problems setting up your Drasil workspace, post an issue on GitHub. The issue should include the details of your OS, what you have tried, and any relevant screenshots.

6. Learn the basics of git (if you don't already know them). An overview of git can be found from the following resources:

   - Capstone tutorial by Sam Crawford on Teams
   - Capstone Tutorial Info
   - Capstone Cheat Sheet (also by Sam)
   - 2AA4/2ME3 Tutorial
   - Git2Know for Drasil