

Frontend / Vue developer for research software development

The Neurobagel project is a recent effort to give researchers access to state of the art methods for distributed data management, without having to learn the details of the underlying technology. A core need for researchers is to find and combine relevant datasets to get the large sample sizes needed for model development and validation. The challenge is that these data are often messy, distributed across research institutes and hospitals, and subject to strict legal and ethical access restrictions. Together with our international collaborators, we are building easy to use software tools to harmonize, integrate, and search across datasets from different sources and with different levels of access restrictions.

To help us achieve these ambitious goals, we're looking for a Vue/Frontend developer with hands-on experience building user friendly web applications who is highly motivated to deliver tools that solve real issues for users. You will be joining our multidisciplinary team of psychology, neuroscience, and machine learning researchers and developers in the Origami Neurodatascience laboratory at McGill where we value a collegial environment of collaboration, curiosity and pragmatism. Our team participates in the regular Origami lab activities where we discuss research and our work, and share our knowledge and experience with others in the team. Our external partners include the ReproNim team, the Douglas Mental Health Institute neuroinformatics team, and the NeuroHub and CONP teams.

You will have the freedom to take initiative, learn and implement new technologies, and help guide the direction of our project. Our front-end tools are essential to make our technical solutions reach a wide research audience. Within your first month in our team, you will learn the architecture and technologies of our tools, and will begin working with other team members to build data harmonization and search tools. You will work closely with clinical and machine learning researchers to understand their data discoverability needs and translate them into new features for our tools. You will also have an opportunity to interact with several international technical collaborators, clinical stakeholders, and community standards organizations.

Primary responsibilities

- Build and maintain beautiful, intuitive user-interfaces for data annotation and search
- Write high quality, well-tested, well-maintained code
- Have a deep understanding of the key goals of the project and implement them proactively
- Take initiative in identifying challenges and proposing practical solutions
- Participate in QA / code reviews to ensure code quality
- Write documentation and give tutorials for a non-technical research-audience
- Help define the frontend roadmap and architecture based on the project strategy
- Contribute to building well documented, python based APIs to handle the data annotation and search workflows on the backend

Core skills

- Demonstrated experience in delivering high quality frontend interfaces (Vue)
- Experience using git in a team (general concept of branches, merging strategies, Pull requests)
- Familiarity with frontend test suites (Jest, Cypress)
- Familiarity with Unix command line tools to access remote servers (bash, ssh, rsync, etc)
- Good communicator - write tutorials and give in-person workshops to non-technical, multi-disciplinary audience

Skills that would help with this role

- Experience using and developing software in Python
- experience with the Nuxt.js framework and scalable vue tools (Vuex, vue-router)
- experience in backend data modeling (ERD, pydantic) and querying (SQL)
- familiarity with open linked data technology (RDF, SPARQL, schema.org) and/or graph databases
- experience with CSS frameworks (bootstrap, tailwind)
- Visualization libraries (D3, plotly, etc)
- Continuous integration and delivery workflows (github-actions, CircleCI)
- Containerization (docker, docker-compose, singularity)
- Familiarity with working in a research context or neuroimaging experience

Details of the role and how to apply

This is a staff position at McGill University with attractive health and vacation benefits. The starting date is as soon as possible, beginning with July 2022. The salary range is experience dependent between 60.000 and 90.000 CAD per year. Remote work and hybrid work models are possible. In this work you will work with Dr. Sebastian Urchs within the Origami lab of Dr. Jean-Baptiste Poline at the Montreal Neurological Institute. Please send your application to sebastian.urchs@mcgill.ca and jean-baptiste.poline@mcgill.ca and outline your interest in this role, relevant previous experience and a sample of your previous work that illustrates your experience. We will make it a priority to respond to your application quickly.