

## **Research Assistant Opportunity Casual Position**

### **Support for Research Projects on Academic Analytics Infrastructure and the Educational Game OMEGA+**

**Start Date: February 2026**

#### **Overview:**

In this position, you will be involved in two research projects: the Academic Analytics Infrastructure (AAI) project (<https://academicanalytics.ca/>) and the educational game OMEGA+ project (<https://omegaplus.ca/>). In both of those projects, a research system has been developed and successfully launched about a year ago. This position aims at supporting those two systems, ensuring that they run smoothly. In addition, the position will involve assisting researchers with using AAI and OMEGA+, thereby getting familiar with the research conducted with those two systems. The next two paragraphs will provide more details on AAI and OMEGA+.

In online learning environments such as Moodle, Blackboard, and BrightSpace, instructors and course designers often get little feedback about how students actually interact with and learn in online courses. Most of these learning systems store comprehensive log data associated with students' behaviors and actions. While these data can provide significant insights for instructors and learning designers on how to better support students and how to design better courses, such data is very difficult to access and interpret by instructors and learning designers, and thus very seldom used effectively. In order to address this limitation, an innovative tool - the Academic Analytics Infrastructure (AAI) - has been created to support course designers and instructors to easily access the huge amount of log data that learning systems store. The tool hosts a variety of features to facilitate course designers' learning about the effectiveness of their courses as well as instructors' learning about student behaviors that impact learning outcomes.

OMEGA+ is an educational game that has been developed to help with an identified skill deficit in Canada and world-wide with respect to meta-cognitive skills. As such, OMEGA+ aims at improving meta-cognitive skills of players by providing them with a gaming-environment where they can have fun playing a set of subgames against each other while at the same time learning important life skills. Each subgame focuses on implicitly improving particular meta-cognitive skills such as problem-solving, associative reasoning, evaluation and accuracy, as well as planning and organization. The game utilizes motivational techniques to encourage users to keep playing, learning analytics to increase users' awareness of their skills and progress, and personalized gaming experiences to consider player preferences and skills. By improving meta-cognitive skills,



players will boost their learning capacities, whether at university or on the job, and will be able to reach their full potential.

The primary job duties for the research assistant will include the following activities:

- Monitoring: monitoring both systems and ensuring that they are running smoothly (e.g., in case the server is down, restarting the server or fixing the problem otherwise, etc.).
- Maintenance: making sure that the systems keep running (e.g., fixing errors if a new PHP version requires changes in the code, updating the AAI Moodle plugin to new Moodle versions, etc.)
- Support for researchers: providing advice/support for the main researchers/operators (e.g., being available and answering questions; helping them to install the systems locally, providing researchers with data from live systems, etc.)
- Operations: ensuring the systems are known and used (e.g., updating the systems' websites, helping to disseminate information about the systems, etc.)

We are looking to hire **one research assistant**. The successful candidate will be working under the supervision of Prof. Sabine Graf and will directly report to her.

The successful candidate will gain valuable knowledge and skills in the broad areas of data science, data analytics, learning analytics, academic analytics, game-based learning, game development, software development, mobile software development, and human computer interaction. In addition, successful candidates will acquire hands-on learning and research skills through participating and assisting in the development, operations, and maintenance of open-source software products. They will also gain experience in team work as well as communicating with diverse audiences, including other academics and team members. In addition, they will get familiar with working in a research environment, which they may later join to conduct their undergraduate research project or MSc essay/project/thesis research. All skills acquired will be professionally transferable.

### **Qualifications:**

- Enrollment in or completion of an undergraduate or graduate program in Computing and Information Systems, Computer Science, Information Systems or a related field
- Strong programming skills (e.g., Java, C++, Python, etc.) and/or strong web programming skills (e.g., PHP, Javascript, etc.)
- Experience with databases and SQL
- Experience in server management would be an asset
- Experience in mobile web development would be an asset
- Good communication skills
- Ability to work independently and reliably, as well as ability to work within a team
- Spending about 10 hours per week for working on this project



Amount of hours: 180 hours (with possibility of extension)  
Location: The position can be done remotely from anywhere in Canada.

We are looking particularly for people who would like to join the research team for a longer period of time. This position also prepares you well for later conducting your MSc essay, project or thesis or undergraduate research project.

### How to apply:

Qualified individuals are encouraged to submit their application by email to Dr. Sabine Graf ([sabineg@athabascau.ca](mailto:sabineg@athabascau.ca)). Applications should include:

- a cover letter that summarizes your skills, interests, and experience
- a current resume or curriculum vitae
- an unofficial copy of your transcript, and
- the contact information for 2 references

Please submit your complete application latest by **December 23, 2025**, which is the date when we will start to evaluate applications. The call will be kept open until successful candidates are found.

All applicants are thanked for their interest in this position; however, only candidates selected for an interview will be contacted.

Athabasca University and the researchers are committed and seek to support equity in employment and research opportunities. We strongly encourage applications from Indigenous people, people of colour, people with disabilities, 2SLGBTQ+ people, women, and other historically marginalized groups. Applicants are welcome, but not required, to self-identify in their letter of application.

For more information on this Research Assistant Opportunity, please contact Dr. Sabine Graf at [sabineg@athabascau.ca](mailto:sabineg@athabascau.ca).