MASTER OF SCIENCE IN APPLIED COMPUTING (MScAC)

Guide to Writing Internship Proposals

Computer Science
UNIVERSITY OF TORONTO

Master of Science in
Applied Computing

Welcome to MScAC.

Each MScAC graduate student takes part in an 8-month internship (May to December) that must include a substantial applied research component.

The MScAC graduate program imposes a higher standard of creative or intellectual exploration than would normally be encountered in a co-op study program or a paid work experience program.

Internship opportunities must be formally vetted by the MScAC program prior to being promoted to MScAC students.

While MScAC does not have publication requirements, there are reporting requirements that should be reviewed by each prospective partner.

1 Master of Science in Applied Computing (MScAC) Program: Guide to Writing Internship Proposals

The MScAC program involves both eight months of rigorous technical courses and an eight- month applied research internship. In recent years the program has witnessed a surge in demand by companies to host an MScAC intern. This guide is designed to help firms develop their applied research internship proposal for consideration by the program. Note that this proposal will be reviewed by at least two researchers who are qualified to judge the quality of the proposed research project. We strongly encourage you to provide sufficient detail in your proposal to adequately convey to the reviewers that it meets the standards of an applied research project suitable for an MScAC student. The proposed internship proposal should also demonstrate that the project has sufficient scope to span at least the period of the internship; and that the student will benefit from the research. A detailed proposal will help ensure that students are fully aware of what the project entails, and will serve to attract students to your project. Finally, the project descriptions are used as a base for matched-funds grant applications, so the more detail you can provide, the better.

1.1 What Is Applied Research?

The MScAC document "Recruiting Guidelines and Information for Prospective Employers" goes into depth around the research internship. In summary, we use the definition of "applied research" from this article:

> **Applied research** is a form of systematic inquiry involving the practical application of science. It accesses and uses some part of the research communities' (the academia's) accumulated theories, knowledge, methods, and techniques, for a specific, often state-, business-, or client-driven purpose…. Applied research deals with solving practical problems and generally employs empirical methodologies. Because applied research resides in the messy real world, strict research protocols may need to be relaxed.

1.2 What Is the Internship Project Proposal?

The proposal is for an applied research project, as opposed to a fully specified development project or a set of tasks. The project should expand the knowledge base in an area that is relevant to both you and to the student.

Attached is a template that you may use for your proposal. You are not required to use this template however we suggest you ensure all the relevant sections are addressed.

1.3 Timeline

We are expecting to create an interactive process in which we provide feedback to you as we obtain proposals. Our goal is to help ensure your proposal qualifies as a high-quality applied research internship for students in our program.

2 For More Information

Prospective partners interested in participating in the MScAC program at the University of Toronto should contact the MScAC program team after reading this overview.

Website: https://mscac.utoronto.ca

Email: partners@mscac.utoronto.ca

The Applied Research in Action (ARIA) brochures detail some of the qualifying internship projects for which partners have recruited MScAC students: https://mscac.utoronto.ca/program-timeline-for-employers#ariabrochures

2.1 Partner Documents

For the latest version of **this document**, please visit: https://uoft.me/mscac-internship-proposal-guide

For the latest version of the **Recruiting Guidelines and Information for Partners**, please visit: https://mscac.utoronto.ca/partner-guidelines

For the latest version of the **Internship Proposal Form**, please visit: https://uoft.me/mscac-internship-proposal-form

3   MScAC Internship Project Proposal Form

An editable version of this form is available at the following address: https://uoft.me/mscac-internship-proposal-form

Proposing Organization

Include the name of the organization, size of the organization, location of the internship, and any other relevant information.

Project Title

Project title required.

Overview of the Organization (about 100 words)

Brief overview of the main business of the organization.

Problem Statement (about 100 words)

State the main challenge the internship is designed to address. Explain why this problem is of relevance to your organization, to the sector in which your organization operates, or to society in general.

Objectives (about 200 words)

Explain the key objectives you are hoping for during the internship. What does success look like? If appropriate highlight how this success will impact your organization.

Methodology (about 200 words)

Explain the methodology you believe should be used to address the problem. Why is this the right methodology? How is this methodology novel? If relevant, explain the approach currently being taken for this problem and why you believe something different is needed.

Desired Background (about 200 words)

Detail the background knowledge you expect from the student for this internship. You may choose to break this down into knowledge through academic preparation (courses, etc.) and through work experience.

Relationship to Past Internships (about 100 words)

If you have hosted past MScAC interns, explain how the proposed internship is related to these. If there is no relationship, just note this here.

Work Environment (about 100 words)

Describe the student's work environment? What type of supervision will the student receive during the internship? How will the environment be conducive to nurturing an applied research project? Detail any other aspect of the work environment which you feel would be helpful.

Other

Detail any other aspect of the internship that will help us evaluate whether it is suitable as an MScAC applied research internship project.