

Applications are invited for the position of VISTA Research Technician for a 2-year, renewable term.

About VISTA

Vision: Science to Applications ([VISTA](#)) is a collaborative research program funded by the [Canada First Research Excellence Fund](#) (CFREF, 2016-2023) that builds on York's world-leading interdisciplinary expertise in biological and computer vision. In collaboration with over 52 academic, public, and for-profit partners from around the world, VISTA will propel Canada as a global leader in the vision sciences by integrating visual neuroscience with computer vision to drive innovation.

The central scientific question that drives VISTA is 'How can neural and/or machine systems be integrated to provide adaptive visual behavior in real-world conditions'. Answering this question will provide fundamental advances to vision science and exciting, widespread applications for visual health and technologies. Thus, our overarching aim is to advance visual science through research that spans computational and biological perspectives and results in real-world applications.

Position title: VISTA Research Technician

Reports to: VISTA Scientific Engineer and Workshop Supervisor

Duration: 2-Year Renewable Contract, Full Time

Hours: 35 hours per week

Rate of Pay: \$60,000-\$65,000 per year

Application Deadline: August 11, 2017

Submission: Please submit cover letter, resume/CV and [VISTA Equity Self-Identification Survey](#) to applyvista@yorku.ca.

Purpose

The VISTA Research Technician will support major VISTA initiatives and core VISTA labs by providing technical support, primarily in the Sherman Health Sciences Building Workshop, for building, modifying, and repairing mechanical and electronic equipment, assisting in lab set-ups, upgrades and troubleshooting, and coordinating with other York technical staff members. Reports to the Supervisor (VISTA Scientific Engineer and Workshop Supervisor).

Responsibilities/Tasks:

Assists in supporting major VISTA initiatives and core VISTA researchers including, but not limited to the following:

1. Workshop Duties (70%)

- A. As assigned by Supervisor. These will include
 - a. Mechanical:
 - i. Building items, to specified levels of precision, out of appropriate materials including metal, wood, plexiglass, etc.
 - ii. Repair of items
 - b. Electrical and electronic:
 - i. Designing and printing circuits
 - ii. Repair of electrical/electronic equipment
 - c. Software items:
 - i. Developing and troubleshooting computer programs
- B. Ensure that the workshop has adequate facilities and supplies
- C. Report on any issues to supervisor and/or facilities committee as appropriate

2. Assist with lab set up, maintenance and upgrades for VISTA core members (30%)

- a. Ordering commercial equipment/systems from manufacturers in accordance with procurement policies
- b. Installation of commercial and purpose-built devices into laboratory settings
- c. Help supervisor Integrate systems/parts and set up VISTA core-member's labs
- d. Assist supervisor with the design of data structures and low-level software interfaces
- e. Assist supervisor with calibration of specific lab set ups, such as spatial coordinates, display brightness/colour, body motion and positioning, audio level, etc.
- f. Assist supervisor with lab function upgrades, particularly for new research projects

Reporting:

The Research Technician reports directly to the Scientific Engineer / Workshop Supervisor (their supervisor).

Qualifications and Skills:

- Experience with precision machining working on one-off items. Knowledge of using drilling machine, lathe, as well as other machining tools. Experience with milling machine and mechanical CAD will be an asset.
- Experience providing technical support for experimental labs.
- Experience with lab set up, upgrades, and system troubleshooting. Familiarity with systems communication. Knowledge of expanding systems through USB, Ethernet, and PCI/PCIe will be an asset.
- Practical knowledge of electronics, circuits, and instrumentation. Experience with analog and digital circuit design. Familiarity with circuit design CAD. Knowledge of embedded systems as well as signal sampling and basic signal processing.
- Experience with software-hardware interfacing. Knowledge of lower-level software programming. Familiarity with Linux and Python will be an asset.

Educational Requirements

Diploma in Electrical or Mechanical Engineering Technician or related discipline.