

Title: Software Engineer

Department: Adaptive Optics Laboratory, Mechanical Engineering, UVic

Start date: January 16, 2012. Term length: 12 months

Summary:

The University of Victoria Adaptive Optics Laboratory is seeking a Software Engineer to assist in the development of the Adaptive Optics Sequencer software for the RAVEN project. RAVEN is a Multi-Object Adaptive Optics (MOAO) pathfinder instrument which will be installed on the 8m-Subaru Telescope, located atop Mauna Kea in Hawaii. RAVEN is a CFI/BCKDF funded project, scheduled to be on-sky over a 2 year development period. The successful candidate will be in charge of assisting in the creation of a Software Requirements Document and designing the software architecture for the AO Sequencer.

Statement of Work:

1. Assist in the development of the Adaptive Optics Sequencer software
2. Assist in the development of morion control systems
3. Assist in the development Web technologies

Experience in the following fields:

- Programming skills with experience in Matlab, C and Java.
- Database technologies.
- Embedded technology
- Programming morion control systems (e.g. Newport, PI)
- Electronic systems and circuit diagrams.
- Web technologies; such as, html and javascript.
- Control system design and operation (as it relates to software engineering).
- Linux and shell scripting.

Qualification:

The successful applicant must have an excellent understanding of the following: OO principles; the ability to understand and translate system requirements specification and system design document requirements into working code; state machines; and algorithms and data structures. Previous experience or familiarity with astronomy would also be an asset.

The successful applicant must be a motivated self starter who is willing to use his/her critical thinking skills to critique designs and implementation