Position Title	Software Engineer
Classification	Level 7
School/Division	School of Engineering
Centre/Section	Australian Centre for Geomechanics
Supervisor Title	Senior Software Engineer
Supervisor Position Number	316451
Position Number	321177

Your work area

The Australian Centre for Geomechanics (ACG) is a multi-disciplinary joint venture and UWA Research Centre which provides professional education, training, research and technology transfer services to the mining sector. The ACG works in the disciplines of underground, open pit and environmental mining geomechanics. The overall aim of the Centre is to improve mine safety and productivity.

The Centre's research team conducts projects in the areas of underground, open pit and environmental geomechanics, and provides research positions for UWA Engineering PhD and Masters students. The translation of research outcomes and technology transfer to industry forms part of the Centre's mandate and is an important focus of the Centre. As a result, the Centre has an excellent track record of transferring technology to the resources industry.

The software mXrap has been developed over many years during the course of several research projects and now forms the cornerstone of the research translation and technology transfer strategy.

Reporting structure

Reports to: Senior Software Engineer

Your role

As the appointee you will, under broad direction, develop algorithms for the solution of engineering problems in the field of mining geomechanics. As part of the mXrap development team you will develop and maintain mXrap apps and will collaborate on the development and maintenance of mXrap.

You will be required to develop and deliver training and produce training materials.

Your key responsibilities

Participate on the development and maintenance of mXrap and mXsync

Participate on the development and maintenance of mXrap apps

Provide management and development of internal java script libraries. Quality control and quality assurance on other collaborator's contribution to the libraries

Consult with research staff and students regarding software development/coding required as part of their research and the transfer of that research into mXrap apps

Oversee research staff and students with coding of mXrap apps or necessary library components

Provide technical software support

Prepare quality assurance and quality control audits of app development within the mXrap platform under the mXrap development project

Prepare developments of plug ins for mXrap in C++

Other duties as required

Your specific work capabilities (selection criteria)

Relevant degree qualification or demonstrated equivalent in computer science / software engineering

Highly developed skills in code optimisation and algorithms

Excellent with engineering mathematics and statistics, as well as vector algebra

Experience in C++ and the ability to learn new language when required

Experience in GIT, JavaScript, SQL, OpenGL, GLSL

Experience in QT, Boost, CMake is desirable

Proficiency in a range of computing skills including word processing, spreadsheets, databases, internet and email

Highly developed written and verbal communication skills

Ability to work independently, show initiative, problem solve and work productively as part of a team

Special requirements (selection criteria)

Occasional weekend work

Occasional travel to mine sites may be required

Compliance

Ensure you are aware of and comply with legislation and University policy relevant to the duties undertaken, including:

The University's Code of Conduct hr.uwa.edu.au/policies/policies/conduct/code/conduct

Inclusion and Diversity web.uwa.edu.au/inclusion-diversity

Safety, health and wellbeing safety.uwa.edu.au/