A Computational Pathology Framework for Rapid Diagnostics and Mobile Healthcare in Resource- Poor Settings

PROJECT DESCRIPTION

"Using purpose built image processing algorithms, we aim to harness the power of increasingly available mobile computing devices for safe, reliable, robust and consistent detection and diagnosis of common and treatable infectious and hematologic diseases – especially in the developing world or in remote or rural locations (for example in Canada's north). For vulnerable populations in rural, remote or impoverished areas, where technology remains a challenge, even simple types of medical testing can be difficult to access as these areas may lack basic amenities, refrigeration, sterile environments or clean water.

We require strong computational skills since the interns will be engaged in the image processing and statistical analysis. The goal is to translate already existing MATLAB algorithms in the python script and integrate with the web based banked of pathological and healthy samples. In particular, we want to integrate in the cloud computing the image processing of healthy and pathological red blood samples arriving daily in the blood labs. "

FACULTY-DEPARTMENT

Engineering- Chemical and Materials Engineering

DESIRED FIELD OF (STUDENT) STUDY

Computer science, Statistics, Electrical, Mechanical, Automation

INTERNSHIP LOCATION

University of Alberta Main Campus - Edmonton

NUMBER OF INTERNSHIP POSITIONS

2

INTERNSHIP START DATE

July 4 (Flexible)

Contact: Brendan Cavanagh, Internship Coordinator (Inbound)
University of Alberta International
intern@ualberta.ca

INTERNSHIP END DATE

Flexible

ARE THE DATES FLEXIBLE?

Yes, I am flexible regarding the internship dates. Selected students can contact me to request a date change.

Contact: Brendan Cavanagh, Internship Coordinator (Inbound)
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