RTP2021 R2 Bayesian Data Analytics for 3D Microscopy

Status: Open
Applications open: 15/07/2020
Applications close: 1/09/2020

About this scholarship

Description/Applicant information
This project aims to develop tools for inference of biological variables/information with quantifiable confidence, for cell microscopy, and to recognise/characterise spatiotemporal patterns of the cell ensemble, including classification and discovery of cell behaviour. Almost all cell data available are from 2-D experiments, and consequently, techniques for extracting cell-based information are commonly based on 2-D analysis. However, recent works showed that cells behave very differently in 3-D. This poses a big challenge for the study of collective cell behaviour in their natural environment. The project combines stochastic geometry models with Bayesian methods for the inference of biological information and automatic recognition/discovery of behavioural patterns from cells in realistic 3-D environment.

Student type
- Future Students

Faculty
- Faculty of Science & Engineering
  - Science courses

Course type
- Higher Degree by Research

Citizenship
- Australian Citizen
- Australian Permanent Resident
- New Zealand Citizen
- Permanent Humanitarian Visa
- International Student

Scholarship base
- Merit Based

Value
Total value of the annual scholarships (stipend and fees) is approx. $60,000 - $70,000 p.a.
Curtin PhD Stipends are valued at $28,092 p.a. for up to a maximum of 3.5 years.
Successful applicants will receive a 100% Fee offset.

Scholarship Details

Maximum number awarded
1

Eligible courses
All applicable HDR courses

Eligibility criteria
- English language IELTS level of: 6.5. overall and no band lower than 6
- Future Higher degree by research applicants
Enrolment requirements
Eligible to enrol in a Higher Degree by Research Course at Curtin University by March 2021

How to apply

Application process
To apply for this project opportunity applicants must submit an email to the contact Project lead listed below. The email must include their current curriculum vitae, a summary of their research skills and experience and the reason they are interested in this specific project.

The Project Lead will select one preferred applicant for this project and complete a Primary reference on their behalf. After confirmation from the Project Lead that they will receive a primary reference for this project, the applicant must submit an eApplication for admission into the applicable HDR course no later than 1st September 2020.

All applicants must send an external referee template to their chosen external reference. All references are confidential and must be submitted by the referee directly to HDRSCH-applications@curtin.edu.au no later than 1st September 2020.

Scholarship applications submitted without a primary reference or a completed application for admission will be considered incomplete. For further information on the application process or for more RTP2021 Round 2 scholarship project opportunities visit: https://scholarships.curtin.edu.au/hdr-scholarships-funding/rtp-policy/

Need more information?

Enquiries
To apply for this project opportunity email your current curriculum vitae, a summary of their research skills and experience and the reason you are interested in this specific project to:
Name: Ba-Ngu Vo
Email: ba-ngu.vo@curtin.edu.au