

Toan Phung

Education

- 2017–Present **Doctor of Philosophy**, *The University of Queensland*, St. Lucia, Queensland, Australia.
- 2014–2016 **Master of Molecular Biology (Advanced)**, *The University of Queensland*, St. Lucia, Queensland, Australia.
- 2009–2014 **Bachelor of Science in Biochemistry**, *The University of Montana*, Missoula, Montana, United States.

Relevant Experiences

- Research Project *uPEPperoni: A 5' UTR Short Open Reading Frame searching tool*
- Supervisor Associate Professor Joe Rothnagel
- Description A tool for searching of sORF in user's input and similar sORF in other protein sequences within the program database and visualization of their positions using heatmap.
- Contribution Revamping code base and bug fixing.
Shifting part of the database from file based to RDBMS.
Integrating and improving functionality.
- Research Project *SWATHLib, an automated workflow for theoretical ion library generation for glycopeptides*
- Supervisor Associate Professor Benjamin L. Schulz
- Description DDA based spectral library together with complexity from post-translational modification are a suboptimal representation of ions within SWATH data. A workaround for this problem is a tedious process of creating a manually curated ion library. SWATHLib is created to address these problems.
- Contribution Writing of the JavaScript front-end using Angular 7 for automated user input collection.
Implementing a Python back-end for processing of user requests.
- Research Project *Evolution and constraints of N-glycosylation Sequons*
- Supervisor Associate Professor Benjamin L. Schulz
- Description Analysis of N-glycosylation sequons in Homo sapiens glycoprotein homologs, their alignment and phylogenetic relation.
- Contribution Programming of automation workflow, logic and analyses

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Extra-Curricula Activities

- 2017 **Poster presented at the 13th Annual SCMB Research Students Symposium.**, *The University of Queensland*, Australia.
Queensland Mass Spectrometry Symposium 2017, *QIMR Berghofer*, Australia.
- 2015 **Poster presented at the 11th Annual SCMB Research Students Symposium.**, *The University of Queensland*, Australia.
- 2009–2014 **International Student Association (Executive officer and Webmaster)**, *The University of Montana*, United States.

Skills

Programming Languages

Python
JavaScript
TypeScript
Golang

Languages

English
Vietnamese

Professional Membership

- 2018-Present **Australian Bioinformatics and Computational Biology Society.**

References

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