PHOENIX YU WILKIE

Research Assistant

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PUBLICATIONS

📄 Journal Articles

- McLachlin, Stewart et al. (2021). "Classifying spinal cord white matter using diffusion tensor imaging tractography and atlas-based labeling". In: *Springer Nature Spinal Neuroradiology* (63), pp. 373–380.

👥 Conference Presentations

- Wilkie, Phoenix, Lukasz Itert, Dina Bassiouny Abousheishaa, et al. (2023). "Creating better whole slide image datasets: Quality control detection of out-of-focus patches in digital pathology". In: *imno.ca*. London, CA: Imaging Network Ontario, Poster.
- Wilkie, Phoenix et al. (2023a). "Creating better whole slide image datasets: Quality control detection of out-of-focus patches in digital pathology". In: *tcairem.utoronto.ca/past-events*. Toronto, CA: Temerty Center for AI Research and Education in Medicine (TCAIREM), Talk.
- – (2023b). "Quality control detection of out-of-focus patches in digital pathology". In: *digitalpathologyassociation.org*. Orlando, FL, USA: Digital Pathology Association, Poster.
- Wilkie, Phoenix, Stewart McLachlin, et al. (2018). "Optimizing an executable automated pipeline for the analysis and visualisation of spinal cord tracts from diffusion tensor imaging". In: Toronto, CA: SRI, Poster.
- Wilkie, Phoenix Yu et al. (2016). "3D Scanning and Printing of Transparent Facial Orthoses". In: Toronto, CA: AAMC, Poster.

EXPERIENCE

PhD Student
Department of Medical Biophysics, Temerty Faculty of Medicine, University of Toronto

📅 September 2021 - present   📍 Toronto, Ontario, CA

- Developing quality control pipelines for digital pathology slides using machine learning.
- Creating weakly supervised learning models for ductal carcinoma in situ recurrence detection.

Software Developer
Dubly

📅 May 2020 – September 2020   📍 Toronto, Ontario, CA

- Creating Python OpenCV software for 3D anatomically correct animation of human skull anatomy and Python Blender scripting for automated animation and artificial intelligence integration.

Research Assistant
Orthopaedic Biomechanics Lab - Sunnybrook Research Institute (SRI)

📅 June 2018 – June 2019   📍 Toronto, Ontario, CA

- 3D design and rapid prototyping of surgical tools.

ACHIEVEMENTS

🏆 **Ontario Graduate Scholarship**
$15,000.00 scholarship at the University of Toronto (2023-Present)

🏆 **Best Deep Learning Poster Winner Cash Prize**
Imaging Network Ontario (ImNO March 2023)

🏆 **Queen Elizabeth II/Graduate Scholarships in Science and Technology**
$15,000.00 scholarship at the University of Toronto (2022-2023)

🏆 **Chancellor's Award Winner**
Full undergraduate scholarship at Queen's University (2016-2021)

💗 **Dean's Honour Roll**
Queen's University (2016-2021)

💗 **President's Scholar of Excellence**
University of Toronto (declined)

💗 **The Cansbridge Fellowship**
Cohort of 2020 - Trailblazers

💗 **Venture for Canada Funding Grant**
Summer Cohort of 2020 - Dubly

💗 **NSERC USRA**
Summer 2020 - Queen's University, Dr. Gabor Fichtinger

💗 **SHAD Valley International Alumni**
Lakehead University (2015)

EDUCATION

B. Cmp. Hons. in Biomedical Computing Specialisation
Queen's University

📅 Sept 2016 – June 2021

4.00 GPA | Professional Internship Year

PhD. in Medical Biophysics
University of Toronto

📅 Sept 2021 – present

4.00 GPA

- Optimizing custom 3D Slicer Modules for surgical navigation.
- Operation of CT scanners and preparation of animal specimens.

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Research Assistant

Perk Lab - Queen's University

📅 September 2016 – 2020   📍 Kingston, Ontario, CA

- 3D modelling and printing for patient-specific medical phantoms.

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Research Assistant

Semaphore Research Cluster - University of Toronto

📅 September 2015 – August 2017   📍 Toronto, Ontario, CA

- Creating a better, more cost-effective alternative for Transparent Facial Orthosis for severe burn victims with 3D technology.
- Bespoke Brain Project to create patient-specific medical models.

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Research Assistant

Advanced Perioperative Imaging Lab - UHN Toronto General Hospital

📅 September 2015 – August 2017   📍 Toronto, Ontario, CA

- Segmentation of DICOM images for 3D patient-specific heart models.

LANGUAGES

English
French
Mandarin

ABOUT ME

Rare plants, mixed media art, embroidery and sewing or playing one of 6 instruments

School and studies

Sleep, wonderful sleep

Spending time with family