

# PHOENIX YU WILKIE

## Research Assistant

@ phoenixyuwilkie@gmail.com    ☎ 647-339-7186    📍 Toronto, ON, Canada    @ @studioyu.art  
🔗 phoenixyuwilkie.com    in linkedin.com/in/phoenixyuwilkie    🐙 github.com/phoenixyuwilkie  
🏠 studioyu.art



## PUBLICATIONS

### Book

- Lyskov, Andrei et al. (2024). *How to Build a Bridge: A guide to make anything happen*. Toronto, Canada: The Cansbridge Press.

### 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, Kelvin Jok, and Anne Martel (2024). “Histology hide-and-seek: visually navigating latent space clustering for pathology exploration”. In: *digitalpathologyassociation.org*. Orlando, FL, USA: Digital Pathology Association, Talk.
- Wilkie, Phoenix, Dina Bassiouny, and Anne Martel (2023). “Quality control detection of out-of-focus patches in digital pathology”. In: *digitalpathologyassociation.org*. Orlando, FL, USA: Digital Pathology Association, Poster.
- Wilkie, Phoenix, Lukasz Itert, Dina Bassiouny, et al. (2023). “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.
- Wilkie, Phoenix, Lukasz Itert, and Anne Martel (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, Stewart McLachlin, et al. (2018). “Optimizing an executable automated pipeline for the analysis and visualisation of spinal cord tracts from diffusion tensor imaging”. In: *Sunnybrook Research Institute Student Showcase*. Toronto, CA: SRI, Poster.
- Wilkie, Phoenix Yu et al. (2016). “3D Scanning and Printing of Transparent Facial Orthoses”. In: *AAMC Conference Proceedings*. 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 user-friendly GUI systems for exploring latent space
- Developing quality control pipelines for digital pathology slides using machine learning.
- Creating weakly supervised learning models for ductal carcinoma in situ recurrence detection.

## ACHIEVEMENTS

- 🏆 **NSERC CGS D CompSci**  
\$120,000.00 CAD scholarship at the University of Toronto (2024-Present)
- 🏆 **Pathology Visions Travel Award**  
\$3,500.00 USD scholarship from the Digital Pathology Association (2024)
- 🏆 **MBP Excellence UTF Award in Biomedical Imaging**  
\$5,000.00 CAD scholarship at the University of Toronto (2023-2024)
- 🏆 **Conference Grant**  
\$780.00 CAD award at the University of Toronto (2024)
- 🏆 **Ontario Graduate Scholarship**  
\$15,000.00 CAD scholarship at the University of Toronto (2023-2024)
- 🏆 **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 CAD 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**  
\$15,000.00 CAD @ the University of Toronto (I declined)
- 🏆 **The Cansbridge Fellowship**  
Cohort of 2020 - Trailblazers
- 🏆 **Venture for Canada Funding Grant of \$10,000.00 CAD**  
Summer Cohort of 2020 @ Dubly
- 🏆 **NSERC USRA**  
\$9,000.00 CAD for Summer 2020 - Queen’s University, Dr. Gabor Fichtinger (I declined)
- 🏆 **QuARMS**  
Top 40 applicants

Mentor

T-CAIREM HASTE Workshop

📅 October 2024                      📍 Toronto, Ontario

- Ignite discussions around proposing safeguards for AI implementation
- Workshop collaboration between MIT x Harvard x UofT
- The goal of this program is to analyze, discuss, and mitigate unintentional data bias when using machine learning and generative AI to make healthcare decisions

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

Research Assistant

Perk Lab - Queen's University

📅 September 2016 – 2020                      📍 Kingston, Ontario, CA

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

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.

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.



Exceptional Youth TV Segment

Television segment presenting my research on TFO (2016)



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

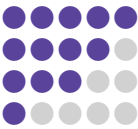
University of Toronto

📅 Sept 2021 – present

4.00 GPA

LANGUAGES

English  
French  
Mandarin  
Ukrainian



ABOUT ME

