

Yiping Wang
Curriculum vitae

Master of Mathematics
Cheriton School of Computer Science
University of Waterloo
Waterloo, Ontario, Canada 🇨🇦

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EDUCATION

University of Waterloo Waterloo, Ontario, Canada
Master of Mathematics in Computer Science Sept. 2021 – Present
Thesis Topic: Robust high-order optimization methods for unsupervised and weakly-supervised segmentation of biomedical images.
Supervisor: Dr. Yuri Boykov

University of Victoria Victoria, British Columbia, Canada
Honours Bachelor of Science in Computer Science Sept. 2017 – Apr. 2021
Cumulative GPA: 8.61 / 9.0 or 91.68%
Honours Project: **Learn by Review: Environment Generalization in Multi-agent Reinforcement Learning**
Supervisor: Dr. Brandon Haworth

CONFERENCE

- 2020
- Y. Wang*, D. Farnell*, H. Farahani, M. Nursey, B. Tessier-Cloutier, S. J.M. Jones, D. G. Huntsman, C. Blake Gilks, A. Bashashati, **Classification of Epithelial Ovarian Carcinoma Whole-Slide Pathology Images Using Deep Transfer Learning**, 3rd International Conference on Medical Imaging with Deep Learning, Montréal, QC, Canada, 6 – 8 July, 2020.

JOURNAL

- 2020
- A. Levine*, J. Peng*, D. Farnell, M. Nursey, Y. Wang, J. Naso, C. Ren, H. Farahani, B. Tessier-Cloutier, C. Chen, D. Chiu, A. Talhouk, B. Sheffield, M. Riazzy, P. Ip, C. Parra-Heran, A. Mills, N. Singh, T. Salisbury, J. Lee, T. Salcudean, S. S.M. Jones, D. G. Huntsman, C. B. Gilks, S. Yip, A. Bashashati, **Synthesis of diagnostic quality cancer pathology images**, the Journal of Pathology

SUBMITTED

- 2020
- M. Havaei*, X. Mao*, Y. Wang, Q. Lao, **Conditional Generation of Medical Images via Disentangled Adversarial Inference**, Accepted by Medical Image Analysis.

RESEARCH EXPERIENCE

Research Assistant
University of Waterloo

Expect Sept. 2021
Waterloo, Ontario, Canada

- Research in robust high-order optimization methods for unsupervised and weakly-supervised segmentation of biomedical images.

Research Assistant

University of Victoria

Sept. 2020 – Apr. 2021

Victoria, British Columbia, Canada

- Researched the value of training environments and generalization in Multi-agent Reinforcement Learning.

Research Intern

Imagia

May 2020 – Dec. 2020

Montréal, Québec, Canada

- Researched in generative models for lung 3D CT-scans.

Research Intern

University of British Columbia

Sept. 2019 – Apr. 2020

Vancouver, British Columbia, Canada

- Researched in patch-level and WSI-level classification for epithelial ovarian carcinoma whole-slide pathology images.

Research Intern

University of Victoria

May 2019 – Aug. 2019

Victoria, British Columbia, Canada

- Researched in patch-level tumour segmentation for the liver hepatocellular carcinoma whole-slide pathology images.

AWARDS AND SCHOLARSHIPS

– 2021

- **Vector Scholarship in Artificial Intelligence Recipient 2021-22**, Vector Institute.
- **International Master's Award of Excellence**, University of Waterloo.
- **University of Waterloo Entrance Scholarship**, University of Waterloo.

– 2020

- **Jamie Cassels Undergraduate Research Awards Recipient 2020-21**, University of Victoria.

TECHNICAL REPORTS

– 2020

- Y. Wang, **Generalization Meets Optimization**, ECE573 Advanced Engineering Design by Optimization (93% A+), University of Victoria, Spring 2021.

– 2020

- Y. Wang, **Deep Reinforcement Learning and Visual Computing for Crowd Navigation**, CSC473 Fundamentals of Computer Animation Capstone Project (98% A+), University of Victoria, Fall 2020.

– 2019

- Y. Wang, C. Ten Have, M. Kennedy, **End-to-End Facial Expression Modifier**, CSC486B Deep Learning for Computer Vision Capstone Project (94% A+), University of Victoria, Spring 2019.
- B. Pattie, Y. Wang, **Segmentation of Overlapping Cervical Cells by Joint Level Set Method**, ECE435 Medical Image Processing Capstone Project (95% A+), University of Victoria, Spring 2019.

SOFTWARE DEVELOPMENT EXPERIENCE

Software Developer Intern

May 2021 – Present

Global Reach Group

Victoria, British Columbia, Canada

- Contributed to a foreign exchange trading and payment platform using Angular and C# ASP.NET Core.

Software Developer Intern

Sept. 2018 – Dec. 2018

Global Reach Canada

Victoria, British Columbia, Canada

- Contributed to a foreign exchange trading and payment platform using Angular and C# ASP.NET Core.

Software Developer Intern

May 2018 – Aug. 2018

Kinsol

Victoria, British Columbia, Canada

- Developed responsive chatbot applications using Python Flask, JavaScript, jQuery, Bootstrap and Rasa.

SKILLS

- **Languages:** Python, Java, C, C++, C#, SQL, Scala
- **Libraries:** PyTorch, TensorFlow, Angular, Unity, .NET, OpenCV, OpenGL
- **Tools:** Git, Docker, AWS, Linux, L^AT_EX

EXTRACURRICULAR ACTIVITIES

Waterloo Mathematics Undergraduate Research Conference

27th – 30th Sept. 2019

Attendee

University of Waterloo, Waterloo, Ontario, Canada

Undergraduate Research Opportunities Conference

27th – 30th Sept. 2018

Attendee

University of Waterloo, Waterloo, Ontario, Canada