Yiping Wang

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/yiping-wang

Education

University of Victoria — Victoria, BC, Canada
Honours Bachelor of Science | Co-op — Sept. 2017 – Present

- Major in Computer Science and Minor in Electrical Engineering.
- Cumulative GPA: 8.44 / 9.00
- Expected Apr. 2021

Institute for Advanced Study, Shenzhen University — Shenzhen, Guangdong, China
Bachelor of Science — Sept. 2015 – Jun. 2017

- Major in Physics and Biology.
- Cumulative GPA: 3.76 / 4.00
- Transferred to the University of Victoria.

Research Interests

Computer Vision • Medical Image Processing • Machine Learning

My interest and enthusiasm for Computer Vision, Medical Image Processing and Machine Learning. I explore how to use medical image data and machine learning to help doctors make decisions. More and more studies show that we can predict disease before it happens by processing and analyzing medical images using machine learning. I am broadly interested in machine learning for improving lesion detection and classification, anatomical structure segmentation and quantification, cancer diagnosis and therapy. In a nutshell, I study and apply computer vision and machine learning for medical imaging.

Research Experience

AI for Medicine | BC Cancer — Vancouver, BC, Canada
Research Co-op — Expected Sept. 2019 – Apr. 2020

- Development of Deep Learning and Medical Image Processing tools for the analysis of digital pathology images.
- Development of web applications for the annotation of digital pathology images.
- Supervised by Prof. Ali Bashashati

Visual Computing Group | University of Victoria — Victoria, BC, Canada
Research Intern — May 2019 – Present

- Research and develop a deep learning algorithm for automated detection and segmentation of liver tumour in pathology images using PyTorch.
- Research and develop an unsupervised algorithm for automated detection and segmentation of tumour and brain area in PET Scan.
- Supervised by Prof. Kwang Moo Yi.

Waterloo Mathematics Undergraduate Research Conference — Waterloo, ON, Canada
Attendee — 27th Sept. 2019 – 29th Sept. 2019

- Meet leaders in mathematical, computer and statistical sciences at a two-day, all-expenses-paid conference hosted by the Faculty of Mathematics at the University of Waterloo.

Undergraduate Research Opportunities Conference — Waterloo, ON, Canada
Attendee — 27th Sept. 2018 – 30th Sept. 2018

- Fully funded workshop for top undergraduate students from North America to discover what graduate studies is like by working alongside faculty and current graduate students on mini-research projects and other activities at the University of Waterloo.

Industry Experience

EncoreFX Victoria, BC, Canada
Software Developer Co-op Sept. 2018 – Dec. 2018

- Developed an online Foreign Exchange Trading and Payment platform, EncoreFX Express, using Angular and C# ASP.NET Core framework.
- Created user features and interfaces for facilitating interactions, which involves designing, developing, and testing new Angular components on the front-end, as well as building and updating new RESTful API on the back-end.
- Improved unit testing coverage using Jasmine, developed a Selenium test suite and researched in preventing Cross-Site Request Forgery and Cross-Site Scripting.

Kinsol Victoria, BC, Canada
Software Developer Co-op May 2018 – Aug. 2018

- Developed several responsive chatbot applications using Python Flask framework, JavaScript ES6, jQuery, and Bootstrap framework.
- Improved Deep Neural Networks through hyper-parameter tuning, regularization and optimization for the chatbot team.
- Implemented methods which detect and recognize different objects using OpenCV in Python for the traffic analysis team.

Projects

Project Title	Keywords	Report
End-to-End Facial Expression Modifier	Conditional GAN Style Transfer Wasserstein GAN	
Segmentation of Overlapping Cervical Cells by Joint Level Set Method	Level Set Method Segmentation Pap Smear Image Analysis	

Selected Course History

Associate with the University of Victoria

Course Name	Grade	Instructor
Deep Learning for Computer Vision	A+ (94%)	Kwang Moo Yi
Medical Image Processing	A+ (95%)	Alexandra Branzan Albu
Introduction to Artificial Intelligence	A+ (90%)	Alex Thomo
Introduction to Computer Graphics	A+ (95%)	Li Ji
Optimization for Machine Learning	Continuing	Wu-Sheng Lu

Awards & Scholarships

Associate with the Institute for Advanced Study, Shenzhen University

- Outstanding Innovative Talent (First Prize, 2017)
- Excellent Student to Academic Performance (Second Prize, 2017)
- Huaqiang Entrance Scholarship (Second Prize, 2015)