LINDA WANG

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Oakville, Ontario, Canada
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Education

University of Waterloo, Masters of Applied Science in Systems Design Engineering, 2018 - Present

University of Waterloo, Bachelor of Applied Science, 2013 - 2018
Systems Design Engineering with Distinction, Honours, Co-operative Program

Publications

A. Boroomand, M.J. Sahfiee, **L. Wang**, E. Kuang, F. Kazemzadeh and A. Wong, **"Compensated lens-free light field microscopy"**, *International Conference on Inverse Problems in Engineering* 2017, Waterloo, ON

Research Experience

Undergraduate Research Assistant - Vision and Image Processing Lab
University of Waterloo, Canada, Sept 2017 - Present
- Optimizing existing object detection models by migrating them from Caffe to Caffe2, and employing these models to run in real-time on mobile

Undergraduate Research Assistant - Vision and Image Processing Lab
University of Waterloo, Canada, Jan - Apr 2017
- Extended the capabilities of the light-field lens-free nanoscopy system to capture information at different wavelengths and concatenate these captures to produce a coloured image

Undergraduate Research Assistant - Vision and Image Processing Lab
University of Waterloo, Canada, Sept - Dec 2016
- Designed and developed a real-time reconstruction visualization platform backed by image quality enhancement algorithms for the light-field encodings captured using a lens-free nanoscopy system and dispersed Fourier Transform spectrometer
- Demoed the light-field microscope to NVIDIA, Samsung, Spectrum 28 and researchers
- Extended the real-time reconstruction visualization system to also support multispectral demultiplexing and

Industry Experience

Software Engineer - Facebook Inc
Seattle, USA, May - Aug 2017
- Developed 3D multi facial deformations using OpenGL for the Augmented Reality Studio on the Computational Photography team
- Experimented with frame buffers in OpenGL to handle interferences when there are multiple faces

Hardware Engineer - Bluebank Communication Technology Co Ltd
Chongqing, China, Jan - Apr 2016
- Designed PCB layouts and component footprints for mobile device components
- Validated device systems using specialized equipment to measure relevant signals, current flow and voltages of device components, and to calibrate radio frequencies
- Drafted mobile system schematics and component parts

Embedded System Developer - Molex
Waterloo, Canada, May - Aug 2015
- Designed a test system of multiple computers in a network and new automated MAC address retrieval algorithm, therefore increasing production and test efficiency

Junior Developer - Molex
Waterloo, Canada, Sept - Dec 2014
- Implemented an image recognition system to detect LED colours in a noisy environment
- Leveraged UDP to automatically download files at various test stages to improve speed and throughput

Developmental Intern - Independent Electricity System Operator
Mississauga, Canada, Jan - Apr 2014
- Wrote an automated synchronization script that sync files from primary server to backup server
- Developed a portal to publish reports to market participants and the general public

Projects

Computer Vision System to Aid the Visually Impaired
- Worked in a team to build an assistive kitchen system for the visually impaired using computer vision
- Won Systems Design Award for Best Overall Project

Selective Attention Model
- Utilized the Neural Engineering Framework to simulate selective attention between the primary visual cortex and middle temporal area

Face Recognition using CapsuleNets
- Used CapsuleNets to recognize faces from the LFW database and obtained promising results

Classifying Heartbeats
- Extracted features to classify audio heart sounds into five classes using machine learning models

Awards and Distinctions

Ontario Graduate Scholarship, 2018

President's Graduate Scholarship, 2018

NSERC Undergraduate Student Research Award, 2016

President's Athlete Academic Honour Roll, 2013-2017
University of Waterloo
- Awarded to student athletes who have achieved an average above 80% for the academic year

President's Scholarship of Distinction, 2013
University of Waterloo

Advanced Placement Scholar with Distinction, 2013
College Board

Skills

Languages: C++, Python, Java, Matlab, C#, Swift, SQL
Design: Cadence Allegro and Concept, Adobe Illustrator and Photoshop, HTML, CSS, Solidworks
Other: Creative, logical, detail oriented, quick learner, teamwork, communication, visual arts

Interests

- Varsity Swim Team**,** University of Waterloo, 2013 - 2017
- Computer vision
- Photography
- Sketching/Drawing
- Science fiction
- Traveling, exploring and hiking