

# LINDA WANG

## Software Engineer – AI/Computer Vision

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in lindawang95

🌐 lindawangg

## INDUSTRY EXPERIENCE

### Machine Learning/Software Engineer

#### Lyft Level 5 - Perception

📅 July 2020 – Ongoing

📍 Palo Alto, CA

- Owned the 2D semantic segmentation pipeline end to end, from data curation to evaluation to inference on AV
- Improved 2D semantic segmentation network performance by 3 points, while decreasing latency and increasing number of classes
- Designed and conducted experiments to improve training efficacy and show the effects of adding vision to a multi-modal sensor fusion neural network model for 3D object detection
- Integrated models into the perception pipeline and deployed to AV
- Designed and developed pipelines that log and visualize network outputs to better understand and debug neural network models

### Research Intern

#### Darwin AI

📅 Jan 2020 – July 2020

📍 Waterloo, ON

- Developed neural networks (COVID-Net) for COVID-19 detection
- Designed an efficient neural network for monocular depth estimation through neural architecture search

### Software Engineer Intern

#### Lyft Level 5 - Perception

📅 May 2019 – August 2019

📍 Palo Alto, CA

- Experimented with supervised and unsupervised methods of monocular depth estimation for autonomous vehicles
- Implemented the pipeline from data preprocessing to training to evaluation for depth estimation

### Software Engineer Intern

#### Facebook - Computational Photography

📅 May 2017 – August 2017

📍 Seattle, WA

- Developed 3D multi-facial deformations using OpenGL for the Augmented Reality Studio

## RESEARCH EXPERIENCE

### Graduate Researcher

#### Vision and Image Processing Lab

📅 Sept 2018 – July 2020

📍 University of Waterloo

- Developed an on-device AI-driven assistant system to help those with visual impairment by combining different visual perceptions (object detection and depth) to produce a rich scene understanding
- Conducted research in prostate cancer detection of diffusion weighted imaging using discovery radiomics
- Teaching assistant for digital computation (SYDE121) and data structures and algorithms (MTE140, BME122)

## EDUCATION

### MASc in AI/Computer Vision

#### University of Waterloo

📅 Sept 2018 – June 2020

Advisor: Alexander Wong  
Finalist for the Alumni Gold Medal and Governor General's Gold Medal

### BASc in Systems Design Engineering

#### University of Waterloo

📅 Sept 2013 – June 2018

Graduated with distinction

## SKILLS

Python

C++

PyTorch

Tensorflow

## SELECTED PUBLICATIONS

### 👥 Conferences

- Wang, Linda, Mahmoud Famouri, and Alexander Wong (2020). "DepthNet Nano: A Highly Compact Self-Normalizing Neural Network for Monocular Depth Estimation". In: *Machine Learning for Autonomous Driving Workshop, NeurIPS*.
- Wang, Linda and Alexander Wong (2019a). "Enabling Computer Vision Driven Assistive Devices for the Visually Impaired via Micro-architecture Design Exploration". In: *Women in Computer Vision Workshop, CVPR*.
- – (2019b). "Implications of Computer Vision Driven Assistive Technologies Towards Individuals with Visual Impairment". In: *Fairness, Accountability, Transparency and Ethics in Computer Vision Workshop (Spotlight), CVPR*.

### 📄 Journal

- Wang, Linda, Chris Dulhanty, et al. (2020). "Radiomics Driven Diffusion Weighted Imaging Sensing Strategies for Zone-Level Prostate Cancer Sensing". In: *Sensors* 20.5, p. 1539.
- Wang, Linda, Zhong Qiu Lin, and Alexander Wong (2020). "COVID-Net: A Tailored Deep Convolutional Neural Network Design for Detection of COVID-19 Cases from Chest X-Ray Images". In: *Nature Scientific Reports*.