# Long Yu Wang

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**TECHNICAL SKILLS**

* Programming Proficiency: Bash, C/C++, Python, Perl, HTML/CSS, Matlab/Simulink
  + Tools: Docker, AWS ECS, Terraform, PostgreSQL, Scikit-learn, xgboost

**EXPERIENCE**

**Insight Data Science Fellowship** - *DevOps Engineering*Jul 2018-Present

* Enable auto-scaling and auto-recovery for image classification transfer learning as a platform using Docker and Terraform

**Ontario Public Service (MOECC)**, *Contractor - IT Support for Enterprise Architects* Oct 2016-Jan 2017

* + Built enterprise context models using Sparkx software for managing 14 ministry regulatory programs
  + Provisioned customized SQL queries from the enterprise context model database for use within the ministry

**Advanced Micro Devices Inc. (AMD)**, *Intern - Design Verification Engineer*  May 2014-Apr 2015

* Designed and owned a verification testbench for the entire development cycle of hardware IP design
* Simulated VHDL design functionality using UVM; debugged VHDL design by tracing signal waveforms
* Demonstrated efficiency by automating nightly regression using Cron Job for continuous code integration

**University of Toronto**, *Research Assistant - Placement and Routing on FPGA CAD Tool Developer* May 2013-Aug 2013

* Implemented graphical visualization of all internal clustered logic blocks on a FPGA chip using EasyGL for Windows to provide better user experience for exploring FPGA architectures
* Designed and implemented GUI functionalities such as zooming and panning with mouse scroll; created compatibility for both Windows and Linux

**EDUCATION**

**University of Toronto,** *Master of Engineering (M.Eng.)*  Sep 2016-Aug 2018

* + **Research:** *Victim Identification in Urban Search and Rescue (USAR) Robots*
    - Experimented with adopting deep learning approach to detect human body parts in indoor disaster scenes; using tools such as Keras/Tensorflow, Caffe, Jupyter Notebook, ROS, Virtualenv, and Git
    - Compared all existing paradigms of deep network for object detection and discovered YOLOv2 to be the best baseline model for USAR application
    - Designed unique method of image preprocessing for data gathered in lab using the Microsoft Kinect
    - Recovered 81% of total body parts count during experiments while achieving 79% mAP for the system
  + Relevant Coursework:
    - Built movie recommender system on the MovieLens 100K movies ratings dataset using collaborative filtering methods
    - Crawled Twitter tweets with hashtag using PySpark and built a “mentions graph” to analyze centrality of the social network using NetworkX and Matplotlib
    - Mined Tripadvisor reviews of hotels in a city and performed sentiment analysis of reviews with NLTK
  + Focus Courses: Data-driven Decision-Making Systems, Data Science, Algorithms and Data Structures, Probabilistic Modeling and Deep Learning

**University of Toronto,** *BASc. in Electrical and Computer Engineering*  Sep 2011-May 2016

* Dean’s Honors Lists; A+ in C++ Programming, Probability, and Calculus

**ACTIVITIES&INTERESTS**

* 2017 Queen’s International Innovation Challenge: proposed high-ROI solution to better distribute crop productions
* Genesys Hackathon 2017: Built customer service chatbot by sequentially cascading LSTM networks
* Basketball: ECE Thunder basketball team captain; won UofT Faculty of Engineering inter-disciplinary championship