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