# Long Yu Wang

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**TECHNICAL SKILLS**

* Languages: proficient in Linux, Shell script, Python, C/C++, SQL, HTML/CSS, and Matlab/Simulink
  + DevOps Tools: Docker, Terraform, Consul, Vault, Packer, AWS ECS

**EXPERIENCE**

**Insight Data Science**,*Fellow* - *DevOps Engineering*Jul 2018-Sep 2018

* Designed scalable infrastructure to deploy Flask web app on AWS using Terraform, offering services to multi users to train customized image classifiers for computer vision tasks
* Enabled auto-scaling of clusters that run Docker containers by using ECS for orchestration
* Created robust cloud server fail-safe mechanism by automatically resuming training process upon recovery; reduced cost by factor of 4 as result of deploying services onto EC2 Spot instances

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

* + Built business context models using SparkX software that scaled to all 14 ministry-passed regulatory programs; improved the visual layout of model diagrams to facilitate cross-ministry communication
  + Provisioned customized SQL queries from the MOECC Oracle database; allowed efficient information extraction for business architects and directors across ministries
  + Participated actively in team meetings and substantially improved communication channels via establishing process for daily check-ins to better understand each other’s responsibilities in an Agile environment

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

* Designed and maintained verification testbench for a hardware IP design from initial planning to production
* Simulated VHDL design functionality using C++ and compared outputs from hardware modules, which led to the resolution of 50+ design flaws over 6 months
* Demonstrated efficiency by automating nightly regression using Cron Job for continuous code integration

**EDUCATION**

**University of Toronto**,*Master of Mechanical and Industrial Engineering*  2018

* + Research Topic**: “**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
    - Recovered 81% of total body parts count during experiments while achieving 79% mAP for the system
  + Highlight Projects:
    - Built movie recommender system on MovieLens 100K dataset using collaborative filtering methods
    - Crawled Twitter tweets and hashtags using PySpark to build a “mentions graph” to analyze social network centrality with NetworkX and Matplotlib
    - Mined TripAdvisor hotel reviews to performed sentiment analysis with NLTK and Scikit-learn
  + Relevant Courses: Algorithms and Data Structures, Probabilistic Modeling and Deep Learning, Data Science

**University of Toronto,** *BASc. in Electrical and Computer Engineering*  2016

**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