YANQING WU

meet.yanqing.wu@gmail.com ⋄ yanqing-wu.com ⋄ LinkedIn/wuyanqing ⋄ GitHub/pwyq ⋄ +31 0685-806-436

SUMMARY

Programming	C++, C, Python, JavaScript, Java, Bash, MATLAB
Tool kits	Linux (Ubuntu/Arch), Git, Vim, ROS, Keras, TensorFlow, Scikit, Pandas, OpenCV

WORK EXPERIENCE

IBM · *Extreme Blue Intern · Toronto, ON*   May - Aug. 2019
- Prototyped a pipeline to identify trustworthy connection profiles, reducing processing time from days to hours
- Explored various classification models and feature embedding techniques with Keras and Scikit, achieving 90%+ accuracy
- Presented our technical and business solution to a panel of IBM executives at New York Expo

NXP Semiconductors · *Embedded Vision & Deep Learning Intern · Ottawa, ON*   Sep. - Dec. 2018
- Optimized on-board Advanced Driver-Assistance Systems (ADAS) vision APIs in C++, speeding up 200%+
- Extended a cross-platform GUI with JavaScript to support editing neural network sub-graphs and layer attributes
- Reviewed 50+ papers and presented promising semantic segmentation models to project lead; trained and evaluated BiSeNet

Huawei, Noah's Ark Lab · *Self-Driving Simulation Intern · Toronto, ON*   Jan. - Apr. 2018
- Built a real-world roadmap based scenario generator in Python, providing millions of miles data for training
- Contributed to the *paper* (accepted as **NIPS 2018 MLITS** poster), including literature review and data collection
- Maintained and developed features for the team-wise used simulator using Python and C++

Conrad School of Entrepreneurship and Business · *BETS Intern · Waterloo, ON*   May - Aug. 2017
- Worked directly with the founding teams of two early-stage startups
- Designed and built a ROI model of workplace performance for cost-effectiveness analysis at *DeepSubconscious.ai*
- Prototyped an iOS app that configures Bluetooth Low Energy (BLE) beacons from major providers at *Ethica Data*

RESEARCH EXPERIENCE

Undergraduate Research Assistant · *Advisor: Prof. Arash Arami · Waterloo, ON*   May 2018 - Nov. 2018
- Explored a CNN-LSTM model with MATLAB to predict gait freeze in Parkinson's disease
- Extracted features in multivariate time series data from wearable acceleration sensors

PROJECTS

Kirsch Edge Detector · *Waterloo, ON*   Jan. - Apr. 2019
- Implemented Kirsch edge detector algorithm in VHDL on Altera
- Scored top 5% in class by optimizing the trade-off between FPGA area and processing speed

FPGA Music Player · *Waterloo, ON*   May - Jul. 2018
- Implemented a music player on the Altera Max10 FPGA using C, with play, pause, fast-forward and rewind features

Mars Rover · *UW Robotics Club · Waterloo, ON*   Jan. - Feb. 2017
- Contributed *Real-Time Ball Tracking*, and ranked top 15 in the International University Rover Challenge 2017
- Implemented contour tracking algorithm and watershed algorithm for locating multiple balls from video input

Line-Following Music Robot · *UW Robotics Club · Waterloo, ON*   Sep. - Nov. 2016
- Led the development of electric circuit, including an R-2R ladder as a DAC to drive a speaker, a sensor suite to convert grayscales to music notes, and signal filtering for enhancing output sound quality
- Organized the selections of all electronic and mechanical components to meet performance and budget requirements

EDUCATION

University of Waterloo · *Waterloo, Canada*   Sep. 2016 - May 2021
B.ASc in Computer Engineering, Honours, Co-op · CGPA: 3.6/4.0

Delft University of Technology (TU Delft) · *Delft, Netherlands*   Sep. 2019 - Jan. 2020
Computer Science and Engineering, Exchange

Selected Coursework: Embedded Programming, Control Theory, Computer Graphics, Deep Learning Specialization