

# Guanqing (Bonnie) Hu

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## EDUCATION

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### Master of Engineering, Electrical Engineering

McGill University, Montréal, Canada

January 2018 - December 2019

CGPA: 3.9/4.0

- Focus on Computer Vision (Image Matting and Segmentation), supervised by *Prof. James Clark*
- **Award:** McGill Engineering Undergraduate Student Masters Award (MEUSMA)
- **Publication:** "Instance Segmentation based Semantic Matting for Compositing Applications," Apr. 2019.

### Bachelor of Engineering, Honors Electrical Engineering

McGill University, Montréal, Canada

September 2013 - December 2017

CGPA: 3.9/4.0

- **Awards:** 2014-2015 Douglas H. Macaulay Scholarship, 2015-2016 the Class of '83 Scholarships

## SKILLS

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### Languages

English, Chinese (Mandarin)

### Programming Languages

Python, Bash, Java, C, Embedded C, Android, Assembly, VHDL

### Libraries & Engine

Tensorflow, Matplotlib, Numpy, Pandas, Django, Unity

### Relevant Courses

Statistical Computer Vision, Applied Machine Learning, Reinforcement Learning, Speech Communication

## WORK EXPERIENCES

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### AI Engineer

April 2019 - Present

AarishTech, Montréal, Canada

- Discover and deploy numerous models for FPGA demonstration.
- Develop post-quantization algorithms to preserve model performance while meet hardware constraints.  
**Technology used:** Python, Tensorflow, Bash, Linux

### Python Developer Intern

May 2017 - July 2017

Ericsson, Beijing, China

- Award: Excellent Intern Award
- Leading developer of command line interface and real-time monitoring dashboard for FPGA acceleration project.
- Developed high-quality internal automation tools for project management.  
**Technology used:** Python, Django, Vivado, Pandas, Bash, Git

### Speech Science Intern

September 2016 - April 2017

Nuance Communications, Montréal, Canada

- Worked on numerous voice biometrics deep learning model tuning.
- Supported several large biometrics clients for system deployment and migration.
- Effectively collaborated with remote staffs. Developed high-quality analysis and testing tools.  
**Technology used:** Python, Voice Biometrics, Oracle VM, Bash, Linux, CVS

## PROJECTS

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**FlappyU** (McHacks 18): Winner of McHacks 2018; Published on Steam VR Game

**Technology used:** Unity, C#, SteamVR

**RoBoss** (Implement AI 18): Activity monitoring application for repeating jobs

**Technology used:** Mask-RCNN, OpenPose

**AidEye** (CodeJam 18): Scene scanner describing surrounding environment to blinds in voice.

**Technology used:** Image captioning, Flask, text-to-speech Api, Github

**GiftyMe** (ConUHacks 17): Honorable mention for the best efforts of using SAP Yaas API

**Technology used:** Python, SAP Api, HTML, JavaScript, Github

**Modified MNIST classification:** Top 2 in Kaggle class competition.

**RL transportation env:** Public transportation optimization environment, using RL to solve real-world problems.

**Short speech classification:** Tensorflow Speech Recognition Challenge

## VOLUNTEERS

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**VP Finance** of McGill Electrical Engineering Graduate Student Society (EEGSS)

January 2018 - Present

**VP Finance** of McGill ECSESS RoboElectronics Club

January 2015 - April 2017