# ZHEJIAN(JERRY) ZHAO

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#### **SUMMARY**

- Recently graduated M.Eng from the electrical and computer engineering department of Queen's university.
- Able to code with multiple programming language, including Python, C/C++, Matlab and Java.
- Strong fundamentals in data communication and possibility theory. Some experiences of analog IC design and hardware description language as well.
- Other proficient computer skills, such as Microsoft Office and Adobe Photoshop.
- Good interpersonal, time management, organizational and fast-learner.

## PROJECT WORK

## Analysis of ubiquitous caching for adaptive video streaming over named data network.

- Set up the Named Data Network, built a network topology, and implemented an adaptive streaming application in NS-3 system.
- Enabled two different caching schemes on NDN routers, LRU and LFU. Measured average throughput, bitrate switches and analyzed the differences.
- Tools: C++.

### A model to choose the best college coaches of all time.

- As a leader of a three-people team to attend the modeling contest and constructed a mathematical model to choose the best college coaches.
- Wrote a web crawler to obtain the data needed from the website.
- Built models to choose the best coaches of all time via golden section search, analytical hierarchy process and data envelopment analysis.
- Compared our results to some rankings from other popular media and drew a conclusion and write the report.
- Tools: Python, Matlab, Excel.

#### Implementation of a robust algorithm for nonlinear system identification.

• Implemented a fast orthogonal algorithm for nonlinear system identification and time series analysis.

- Programmed the algorithm to solve the nonlinear system, tested the minimum square error and used the model to do predictions.
- Tools: Python

## An intelligent vehicle based on FPGA.

- Acted as the leader of a three-member team responsible for assigning duties, communicating with the professor and writing the final report.
- Built and programmed a two-wheel-drive intelligent vehicle which finally can realize multiple functions including tracking, avoiding and measuring distances.
- Tools: VHDL.

#### **EDUCATION**

Queen's University Sep. 2015 – May. 2017

Master of Engineering, Electrical and Computer Engineering

Tianjin University Sep. 2011 – Jun. 2015

Bachelor of Engineering, Electrical Information Engineering

#### **AWARDS**

- 2014. 04 Honorable Mention in the 30th annual Mathematical Contest in Modeling
- **2013. 04** Advanced Individual in Summer Vacation Social Practice of Tianjin University.
- **2012. 12** Outstanding University Student Cadres of Tianjin University.