

# Tianchang (Elaine) Hou

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## QUALIFICATION SUMMARY

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- Familiar with software lifecycle and development procedure
- Solid knowledge of database, data structures as well as algorithms
- Programming Languages: Python, C/C++, Java, HTML5, CSS, JavaScript
- Skilled tools: GitHub, Visual Studio, Android Studio, Eclipse, MySQL, Linux, VMWare, Tomcat

## EDUCATION

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- **University of Waterloo, CA**, Master, Electrical & Computer Engineering Sept 2017 – present
- **Chongqing University, CHN**, Bachelor, Software Engineering Sept 2013 – Jun 2017

## WORK EXPERIENCE

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**UI Developer, WATonomous, CA** May – Jul 2018

- Designed the views of an auto-drive system by Qt
- Implemented multiple views to coordinate with model & controller parts under the Robot Operating System (ROS)

**Web Development Assistant, Centre for Intelligent Antenna and Radio Systems (CIARS), CA** Apr – Jun 2018

- Collected and proofread the information of papers published by staff in CIARS
- Transferred the content from old website to the new one

**Application Development Intern, China Ocean Shipping Group Company, CHN** July - Sept 2016

- Developed an intelligent contact system for the company's internal usages using Java
- Realized the following functions such as listing staff information sorted by department and searching and internal calling between contacts
- Collaborated with other teammates and gained knowledge of version controlling using Github

## PROJECT EXPERIENCE

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**Personal Website with Bootstrap Framework** Aug - Sept 2018

- Designed a personal website, <http://elainehou.pro>, based on a template using bootstrap
- Applied plugins in the page such as circliful, fancybox, mixitup, and JavaScript utility PDFObject

**Batch Normalization Long Short-Term Memory(BN-LSTM) for Fake News Challenge** Jun - Jul 2018

- Addressed stance classification task with TensorFlow by data preprocessing, word embedding using word2vec & trained Global Vector (GloVe) word vectors, and neural networks.
- Optimized the basic LSTM with batch normalization, compared the performance of different approaches such as GNU, Gradient Boosting, evaluated the results by confusion matrix.

**Android Application Development for Permission Management** Apr - May 2017

- Developed 'Permission Switch' to prevent Android users' sensitive permissions being abused.
- Applied Xposed framework in disabling unnecessary permissions required by third-party applications.
- Gained the knowledge of Android permission mechanism and familiarized with fundamental software development procedures

**Android Application Development for Mobile Banking** June - July 2016

- Developed an Android mobile banking application by leading a team of five
- Designed tables of database and implemented them by utilizing MySQL
- Parsed JSON-format data into Java Objects to ensure a readable client-side interface
- Familiarized with the software development cycle especially the usage of MockingBot