YIRUI HUANG

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WORK EXPERIENCE

Google Inc. **Tokyo, Japan**

Software Engineer Internship | Maps Team (Android) May – Jul 2017

- Designed and implemented an interactive screenshot code generator for Android Google Maps

Brown University **Providence, USA**

Visiting Student Research Internship | Human-computer Interaction Lab Jan – Apr 2017

- Performed statistical analysis on user interactions for the crowdsourcing system "Drafty" (Advisor: Jeff Huang)
  - *See HCOMP 2017 conference paper https://aaai.org/ocs/index.php/HCOMP/HCOMP17/paper/viewFile/15919/15276*

Google Inc. **Tokyo, Japan**

Software Engineer Internship | Chrome Team (Android) Sep – Dec 2016

- Created support for multiple locales for languages in Android Chrome and WebView
- Fixed Han Unification in Android Nougat
- Made locales consistent across all Chrome supported Android Versions

Google Inc. **Tokyo, Japan**

Summer Trainee Engineering Program Internship | Maps Team (Analytics) May – Sep 2015

- Improved the bug assignment system in Google's internal bug organizer

ACADEMIC PROJECTS

Continuous Word Recognition Mar – Apr 2018

- Performed an HMM-based speech recognition task on the TIMIT speech dataset using the Kaldi toolkit
- Wrote shell scripts to investigate the influences of acoustic features and dynamic features on word error rate

Image Captioning Jan – Apr 2018

- Used the TensorFlow framework to perform an image captioning task on the MSCOCO dataset
- Constructed an encoder-decoder framework with a CNN encoder and an RNN decoder with GRU and LSTM
- Rewarded for third best project in Machine Learning Practical by IBM

Image Classification Sep – Nov 2017

- Classified images of handwritten digits and letters from the MNIST and EMNIST datasets using deep neural networks
- Implemented models with different activation functions, weight initialisation strategies, and learning rules

Speaker Independent Digit Recognition Sep – Nov 2017

- Recorded voiced English digits and parameterised the collected waveform files as MFCCs
- Constructed a speaker-dependent, and -independent speech recogniser using the Hidden Markov Model Toolkit (HTK)

Facial Expression Prediction - Kaggle Competition Feb – Apr 2016

- Used the Toronto Faces dataset to classify faces based on several facial expressions

COMPUTER SKILLS

Tools: Android Studio, Eclipse, TensorFlow, Kaldi, Git, Latex, Microsoft Office, NuSVM
Operating Systems: UNIX (Mac OS X, Linux), Windows, Chrome OS, Android
Languages: Proficient in Java and Python, previously used Shell Script, SQL, C++, Matlab, Go

EDUCATION

The University of Edinburgh, School of Informatics Edinburgh, the United Kingdom
Master of Science with Distinction in Artificial Intelligence Sep 2017 – Nov 2018

University of Toronto, Faculty of Arts and Sciences Toronto, Canada
Honors Bachelor of Science with Distinction in Computer Science and Mathematics Aug 2012 – Jun 2016

Waseda University, School of Fundamental Science and Engineering Tokyo, Japan
One year Exchange Program (University of Toronto) Aug 2014 – Jul 2015