HAOLIANG CHEN

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EDUCATION

Northeastern University *Expected May 2021*
Master of Science in Computer Science
Zhejiang University *September 2015 - July 2019*
Bachelor of Engineering in Measurement Control Technology and Instruments
Overall GPA: 3.56/4.0 The last two years GPA: 3.90/4.0

EXPERIENCE

Laboratory of Translation and Localization Technologies, School of International Studies, Zhejiang University
September 2018 - February 2019

- Learned the course of Corpus Linguistics
- Wrote an essay *A Corpus-based Study of Differences in Use of Structural Auxiliary Word 'de' in Native Chinese and Translated Chinese*
- Wrote a post *Processing Corpus with Python*

Nai Ding's Lab, College of Biomedical Engineering and Instrument Science, Zhejiang University *April 2018 - September 2018*

- Learned linguistics and natural language processing
- Read papers in natural language processing
- Learned to use NLTK and spaCy

PROJECTS

Language Model Based Punctuation Prediction (Summer, 2019)

- Designed punctuation prediction algorithms with two pre-trained language models: OpenAI GPT and BERT
- Tested on Europarl v7 and achieved F_1 scores of 0.602 (OpenAI GPT) and 0.732 (BERT), respectively

Intelligent Dictionary (Summer, 2018)

- Used a 1-million-word corpus and wrote a spelling corrector referring to Peter Norvig's blog
- Implemented simple 1-letter and 2-letter word completion
- Called API provided by Microsoft Azure and Baidu Translate to recognize handwritten letters and translate text into Chinese

Image Processing Tool (Fall, 2017)

- Implemented some image processing algorithms (grayscale, Gaussian blur, etc.) both from scratch and using MATLAB's Image Processing Toolbox
- Used K-means algorithm learned from Machine Learning to compress images

Hypertension Management System (Spring, 2017)

- Built GUI with Java Swing
- Designed database using SQL Server 2012

SKILLS

C++, Python, C, Java, MATLAB
Markdown, LaTeX, Jupyter Notebook, Git