

# ZHUOWEI HUANG

Los Angeles, CA 90007 | C: (+1)757-291-0838 | [zhuoweih@usc.edu](mailto:zhuoweih@usc.edu) | [zhuowei.ml](http://zhuowei.ml) | [linkedin/in/zhuoweihuang](https://linkedin/in/zhuoweihuang)

## EDUCATION

**Master of Science in Computer Science**  
**University of Southern California** — Los Angeles, CA  
GPA: 3.85/4.0

Jan 2019 - Dec 2020

**Bachelor of Science in Computer Science & Music**  
**College of William and Mary** — Williamsburg, VA  
GPA: 3.8/4.0

Aug 2014 - May 2018

**Honors:** Summa Cum Laude, Phi Beta Kappa, Mortar Board, Aurelia Behm Walford Scholarship

## SKILLS

- Programming Languages (ordered by familiarity): Python, C++, Java, C
- Experienced in NoSQL databases: MongoDB, Neo4j
- Experienced in web crawler
- Familiar with Tensorflow Framework
- Fluent in Git
- Amazon Web Services Experience

## PROJECTS

### Difference As Repetition: A Polyphonic Midi Synthesizer & Sequencer

- Designed and developed a fully-fledged multi-platform audio application based on JUCE framework using C++, enabling artists to explore and evolve sounds through a live interaction of integration of a Midi synth and a step sequencer.
- Adopted by the music department as an interactive learning software for digital music production.

### Object Detection Pipeline for Deer Activity Pattern Analysis

- Trained Faster R-CNN and Mask R-CNN models using Tensorflow, built a pipeline based on trained to generate time series and analyze deer activity patterns from captured images.
- Incorporated as part of the image processing tool and facilitated relevant researches in William & Mary department of biology.

### Web Interface to Support Large Scale Mining on Github

- Cooperated on a team of five, implemented a web platform to visualize Github's statistical data, with integrated visualization and simple source code analysis such as abstract syntax trees extraction.
- Responsible for back-end Java development on GitHub API querying, and data management with MongoDB.

### Travel Companion

- Created a **blockchain** (Blockstack) based distributed travel document management and custom checkpoint infrastructure, and developed two Web app using React for demo.
- Major League Hacking HackSC '19 Runner-up project.

## WORK EXPERIENCE

### Software Engineer Internship

May 2017 - Oct 2017

**Deepinv** — Shanghai, China

- Developed and deployed distributed web crawlers using Python Scrapy and Scrapy-Redis, extracted data daily from over 10 different financial and news websites.
- Constructed Deepinv's initial MongoDB database for sentiment analysis.
- Created a demo knowledge graph with Neo4j based on Microsoft Concept Graph for querying concept hierarchy, sibling terms, etc., to be adapted by Deepinv on financial data.
- Delivered basic data pre-processing and cleanup, including categorization based on regex pattern matching.
- Automated translation of English document into Chinese through Baidu's translation API.