# Kaiwen (Kevin) Zhu

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#### **EDUCATION**

The George Washington University
School of Engineering & Applied Science

Washington, DC Expected May 2019

Master of Computer Science

Nanjing University of Information Science & Technology School of Computer Science & Software Engineering

Nanjing, Jiangsu, China September 2013- June 2017

Bachelor of Software Engineering

#### **TECHNICAL SKILLS**

Language: JAVA, JAVASCRIPT, PYTHON, MATLAB, PHP, SQL, HTML

Technique: Back-End(Spring Boot, Django, Hibernate), Front-End(React), AWS(EC2, RDS), Database(MySQL, Oracle, Neo4j),

Data-Mining (Theano, Panda, Numpy), Web-Crawler (Selenium, BeautifulSoup)

## RELEVANT EXPERIENCE

#### The George Washington University

Washington, DC

Homeowners Association of WordPress Plugin

**February 2019 - April 2019** 

• Led a team to develop an installable WordPress plugin for helping the homeowner to maintain the property of community

Blog Site November 2018 - April 2019

- Developed the front end by React and designed the interface by Adobe Illustrator
- Used Java Spring to build the back end program with Hibernate and MySQL

#### **Recommendation System**

November 2018 - January 2019

- Took the responsibility for back-end development by Spring Boot and Python on EC2 and RDS
- Designed and implemented the data model for recommendation System on MySQL and Neo4j
- Created python scripts for extracting and processing data, and integrated them into java program

## **PDP-8 Simulator**

September 2018 - December 2018

- Designed and implemented interface refer to PDP-8 by JAVA swing
- Simulated computer basic principle by JAVA, such as memory operation, cache operation, floating point calculation, pipeline, branch prediction, execution instructions, etc

#### Nanjing University of Information Science & Technology

Nanjing, Jiangsu, China January 2017 - May 2017

#### **Weather Regression Estimation Model**

- Collected weather data from the Internet through developing python web-crawler by BeautifulSoup and Selenium, then
  detected and corrected data for standardization and saved in MySQL database
- Built convolutional neural network base on Lenet-5 by Python Theano for regression problem

#### **Group Leader of Mathematical Contest in Modeling Contest in Modeling**

March 2017

- Simplified the map of Europe to undirected graph for simulating resource distribution and improved Gravity Model for predicting population movement trend
- Predicted population trend by Gravity Model by Genetic Algorithm

### **Group Leader of Undergraduate Mathematical Contest in Modeling**

**July 2016** 

- Analyzed and processed video data by Python and used meteorological knowledge to built a model for predicting the video location according to shadow change, resulting obtain approximate location
- Optimized partial differential equation parameters by Python for precising location based on particle swarm optimization

### **Verification Code Recognition Model**

May 2017 - July 2017

- Developed web-crawler to fetch data from Internet and standardized image data by Python PILLOW
- Designed and implemented simulator base on the process of phage parasitic bacteria to identify CAPTCHA with adhesion hollow characters, resulting in identifying such CAPTCHA with an accuracy rate of 71%

#### **HONORS**

- Meritorious Winner in Mathematical Contest in Modeling/ Interdisciplinary Contest in Modeling
- The 2nd prize of Undergraduate Mathematical Contest in Modeling in Jiangsu China
- The 2nd prize of The Ninth NUIST Program Design Contest