JIAJUN ZHANG

Address: 526 W 123 ST, New York, 10027
Webpage: http://petercanmakeit.com | Email: z.jiajun@columbia.edu | Phone: (917)-640-3324
LinkedIn: http://linkedin.com/in/zhang-jiajun | GitHub: https://github.com/petercanmakit

OBJECTIVE

Software Development Engineering, Full-time

EDUCATION

COLUMBIA UNIVERSITY

M.S. Computer Engineering
Expected Dec 2017 | GPA: 3.54

ZHEJIANG UNIVERSITY

B.E. Information and Communication Engineering
June 2016 | GPA: 3.72

COURSEWORK

GRADUATE

Operating Systems
Analysis of Algorithms
Computer Networks
Database Systems Implementation
Big Data Analytics

UNDERGRADUATE

Functional Programming
Data Structures
Computer Architecture
Theory of Probability

SKILLS

LANGUAGES

Java • Python • C • SQL

BACK END

Flask • PostgreSQL • SQLAlchemy

FRONT END

JavaScript • HTML • CSS • JQuery

OTHER

Linux • Git • Google Cloud Platform

AWARDS

• First Prize in the National Undergraduate Electronic Design Contest, Zhejiang Prov. | 2015
• ISEE Texas Instruments College Student Grant, Zhejiang University | 2014-2015

EXPERIENCE

FULL STACK DEVELOPER | Interactive Pedestrian Injury Mapper Web App, https://petercanmakit.github.io/IPIM/

May 2017 - Aug 2017, Columbia University Medical Center, New York, NY

- Used **Google Maps** to develop an interface for victims to visualize the route on which they were hit by a vehicle.
- Built a questionnaire view to collect victims' information. Implemented monitoring of the user behavior when answering.
- Worked with **PostGIS** extension on **PostgreSQL** for location storing.
- Created an admin interface to retrieve data and display the statistics about the datasets with **Chart.js** and clusters the spots of accidents on maps.
- Used **Flask** to construct the server app. Built a wrapper (`Gapy`) for **Google Analytics** to retrieve page views and event tracker information.

TEACHING ASSISTANT | CSEE 4119 Computer Networks

Sep 2017 - present, Columbia University, New York, NY

- Provide weekly individual instruction and guidance to students. Answer questions asked by students after class.
- Cooperate with the professor and the TA team to assess the written assignments, the programming projects, and the exams.

RESEARCH ASSISTANT | Enhancement of the Palmprint Directional Field

Nov 2015 - May 2016, Zhejiang University, Hangzhou, China

- Utilized **OpenCV** to extract the directional field and preprocess it.
- Implemented a Random Forest algorithm with **scikit-learn** to enhance the palmprint directional field.
- Wrote a **Python** visualization tool to analyze the enhanced directional field.

PROJECTS

UdpChat [Java, Socket Programming]

Feb 2017 - Mar 2017, Columbia University

- Developed a P2P chat program with functionalities of online / offline chatting.
- Built the server as it broadcasts the contact information of all users and receives / sends messages for offline users.
- Applied acknowledgment messages to provide reliable communication.

HTTP Server [Linux, C , Socket Programming]

Jan 2017 - Feb 2017, Columbia University

- Built a web server which handles HTTP requests, using socket programming with C language on Linux.
- Starting from single process, developed to multiple processes and threads in order to increase throughput.

Other Projects

- Created a Music Sharing Web App [Python, SQL, Google Cloud, Flask]
- Implemented a Linear File System on loop devices [Linux Kernel, C]
- Implemented a Random-Robin Task Scheduler [Linux Kernel, C]
- Wrote a program to simulate Go-Back-N Transfer Protocol and Distance Vector Routing Algorithm [Java, Socket Programming]
- Created a Research Tool for motor collision analysis [Hadoop, Pyspark]