



## Wujianqiang

### Self Description

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I like the challenges in difficult problems and have strong ability to learn quickly and master new skills. I have experience both on frontend and backend, I also am familiar with NLP algorithms and techs.

**Programming Languages:** C#, Python, Javascript + React, C++, Node.js

**Familiar Platforms:** Linux, Windows

Good at reading and writing in English Good at writing tech documents

### Master Research Background

1. Research about the Combinatorial algorithm and Machine Learning algorithm on Bioinformatics
2. Computing optimization

### Work Experience

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**Senior software engineer(project leader)** – Microsoft, Suzhou 2019/07-To Present

1. Leading on development of Personalization Ranking in Bing Search Stack
2. Joining in designing and development of Intelligent Knowledge Recognition System for medical papers.
3. Leading on migration of Smart Reply System for outlook
4. Leading on development of Vertical Search Engine for web3 data

**Senior software engineer** - Atman(startup), Suzhou 2018/04-2019/07

1. Developing micro-service for medical translation of our company
2. Developing knowledge-graph for medical research
3. Research about NLP on medical

**Tech Leader** - Hannota(startup), Suzhou 2016/10-2018/03

1. Leading the team for development
2. Developing the prototype products

**Software engineer** - Microsoft , Suzhou 2015/06-2016/10

Developing modules in SharePoint System and test it

### **Project Experience**

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**Tech Leader** - Intelligent Knowledge Recognition System for medical paper 2020/07-2021/07

#### **Description**

This project was to recognize the knowledge entities in the medical papers with NLP algorithms and models.

#### **Responsibilities**

1. Implementing the core frontend component for data labeling for pdf papers with React
2. Implementing the NLP models for knowledge recognition.

#### **Achievement**

The users are very satisfied with our NLP system.

**Tech Leader** - Personalization Ranking in Bing Search Stack 2019/07-2020/07

#### **Description**

Bing search needs personalization ranking for better user search experience.

#### **Responsibilities**

1. Designing the ranking models for user personalization ranking
2. Implementing the ranking extension in Bing Ranking Stack

#### **Achievement**

Achieving more gain on the search relevance of Bing user personalization ranking

**R & D Engineer** - Medical Knowledge Graph 2018/06-2019/04

## **Description**

The project is mainly to extract relevant knowledge from medical papers. this system can help medical or drug research and development. it is the company's core exploration project.

The first step in constructing a medical knowledge map needs to automatically identify the entities in the medical literature, so the model is needed to extract the entities with machine learning algorithms.

Main technologies: python, distributed framework Celery, graph database NEO4J

## **Responsibilities**

Designing and Implementing of Medical Knowledge Graph System

## **Achievement**

Developing the three versions of iterative development

Solving a lot of data import to NEO4J problems quickly, optimizing the speed of data import by 40

**R & D Engineer** - Design and implementation of data management system      2018/05-2018/06

## **Description**

The function of the system is to store the corpus, update the translation results regularly, and provide an interface for external use of the data.

**Main technologies:** Docker, AirFlow

## **Responsibilities**

Designing data management systems and implementing modules based on data storage and usage requirements

## **Achievement**

Finishing the project and running the system to help the management of the corpus

**R & D Engineer** - Design and development of micro service Interface      2018/03-2018/05

## **Description**

Mainly the interface related to translation services

Main technologies: Docker, RESTFUL API, flask, Python

### **Responsibilities**

Implementing various translation interfaces, including some third-party translation interfaces Hack Use

### **Achievement**

Implementing the project. The interface run well, what is more the maintenance was easy

**Data engineer** - Hotel Data Crawler

2017/11-2018/01

### **Description**

This pipeline can crawl hotel prices from various platforms online. This was used to support for hotel price prediction.

**Main technology:** Python Scrapy Framework, Celery, Redis

### **Responsibilities**

Designing pipeline architecture to optimize crawling data speed

### **Achievement**

This pipeline worked well for crawling hotels price from internet.

**Software engineer** - Identification and development of glycan peptides software 2017/06-2017/10

### **Description**

The molecular morphology of glycan peptides was identified from biomass spectrometry data. Traditional software speed is slow, what more the precision is not enough, it cannot meet the growing requirements for scientific research business. So this project is to develop a glycan peptide identification software with better speed and accuracy.

**Main technologies:** C++, indexing, machine learning rank algorithm

### **Responsibilities**

Responsible for research about identification algorithms, software coding, testing

### **Achievement**

The construction of glycan is very efficient, the precision of the software is highly improved, the speed of the software is greatly improved by using ion indexing technology, and the speed accuracy is far superior to foreign commercial software.

**Project Manager and Software engineer** - Glycan Biological Data Platform

2017/03-2017/06

### **Description**

A data analysis platform based on glycan database, which can be used for users to query data and submit Data to refine the database. Use machine learning methods to provide glycan spot prediction.

**Main Technologies:** PHP + H5 +JS; machine learning classification algorithms

### **Responsibilities**

1. Responsible for technical research of the platform
2. Responsible for completing the front end of the website
3. Responsible for completing the backend of the platform
4. Responsible for the completion of machine learning algorithms

### **Achievement**

The platform is : <http://www.oglyp.org/>

Finishing the construction of the whole platform, in-depth study of a variety of machine learning algorithms, improving the prediction accuracy of glycan sites (98%)

**Tech leader - CIPA**

2016/11-2017/02

### **Description**

CIPA is a genetic data labeling software that can analyze user's genetic data from different perspectives.

**Main technologies:** C#, WPF

### **Responsibilities**

Responsible for technical research Software coding

Software test

### **Achievement**

Finishing the technical research of the project, and the software user interface development with .net winform and WPF, and coding the core logic modules.

**Software engineer - Developing SharePoint Multi-Geo Environment Test Tool**

2016/03-2016/10

### **Description**

Sharepoint can be easily understood as a document management system, which can provide functions such as saving, sharing and online editing of documents. The previous data is stored in the same area or the server is in one place, not meeting the increasing policy and actual needs, so it is necessary to establish Multi-geography storage of documents.

**Main technologies:** C#

**Responsibilities**

Responsible for the technical investigation, designing of the project test environment, implementing the test tool, the API for users

**Achievement**

Finishing the tool. This work pretty improved the progress of the whole project so that it had a good business impact.

**Software engineer** - SharePoint Text Analyzer Add-In

2016/01-2016/03

**Description**

Develop an internal message text analysis tool to generate reports to be referred by leaders.

**Responsibilities**

1. Responsible for the technical research of the project
2. Responsible program architecture
3. Responsible for the coding implementation of the program
4. Responsible for program deployment

**Achievement**

Finishing the tool, the project is applied to the daily administration of leaders

**Bug Test and Fix**

2015/08-2015/10

**Description**

Testing system and fixing bugs

**Responsibilities**

Testing bugs, fixing bugs

## **Achievement**

1. Fixing some bugs to help improve the project
2. Solving a difficulty bug that puzzling a few team members

## **Education**

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Institute of Computing Technology of the Chinese Academy of Sciences (hereafter ICT)

### **software engineering**

#### **Master Degree**

Sichuan University

### **Computer science and technology**

#### **Bachelor Degree**

## **Additional Information**

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Bachelor

1. Top 3% grades in undergraduates
2. 2009 National Motivational Scholarship, Sichuan University second class scholarship
3. 2010 Sichuan University second class scholarship, Southwest Division Programming Competition Third Prize
4. 2011 First Prize of National College Mathematics Modeling province, Sichuan University single first class scholarship, Huadi Internship Outstanding Project Award, College Innovation Project first prize
5. 2012 Sichuan University Excellent thesis award, Sichuan University outstanding Graduates

Master:

1. Top 3% grades of Postgraduates
2. 2013 Chinese Academy of Sciences three good students
3. Two top papers published in Scientific Reports and Nature Coms.