

# Tuo Shi

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## EDUCATION

<b>Carnegie Mellon University</b>	<i>GPA:3.5/4.0</i>	<b>Pittsburgh, U.S.</b>
• <i>Master of Information Systems Management</i>		September.2018-December.2019
Coursework: Database, Java, Data Mining(A+), Distributed Systems, Web Application Development, Data Structure, Object-Oriented Design, NoSQL		
<b>Peking University</b>	<i>GPA:88/100</i>	<b>Beijing, China</b>
<i>B.A. Economics</i>		September.2013- July.2016
<b>Beijing Foreign Studies University</b>	<i>GPA:90/100</i>	<b>Beijing, China</b>
<i>B.A. Japanese</i>		September.2011- July.2015

## SKILLS

- **Languages:** Java, Python, R, SQL, JavaScript/ES6, HTML5/CSS3, PHP, C/C++, bash scripting,
- **Frameworks:** Spark, Hadoop, HDFS, Spring MVC/Boot, J2EE, JSP, Tomcat, Django, Flask, Scrappy, React, Redux, Node.js, Laravel
- **Database/Tools:** MongoDB, MySQL, SQL Server, AWS EC2/S3, Docker, Git, npm, yarn, pip, Maven, Matplotlib
- **Knowledge:** OOP/OOD, Design Patterns (MVC, Factory, Singleton, etc.), Android, Data mining

## WORK EXPERIENCE

<b>China International Capital Corp, Ltd ( CICC )</b>	<b>Beijing, China</b>
<b><i>Software Engineer (full-time), Operations Department</i></b>	August.2017-July.2018
<ul style="list-style-type: none"><li>• Participated in System development, , an integrated system containing inquiry, ordering, valuation, etc.</li><li>• Elucidated use cases and drew sequence diagram and activity diagram of daily process for IT department</li><li>• Offered design patterns to increase reuse and variability for functions, reducing coupling and increasing cohesion</li><li>• Wrote test cases using JUnit based on mathematical models and ran performance test using JMeter</li></ul>	
<b><i>Data Analyst (full-time), Operations Department</i></b>	September.2015-July.2017
<ul style="list-style-type: none"><li>• Built Oracle database and connected with Python, using Python packages to analyze and integrate unformatted data</li><li>• Integrated market info using Python and Wind API, processed data and performed data visualization by Matplotlib</li><li>• Executed web scraping to extract data by using Scrappy, re, pandas, BeautifulSoup and Oracle to perform ETL</li><li>• Read scanned files using pdfminer3k, integrating data into Oracle via cx_Oracle and sending report by reportlib.</li></ul>	

## PROJECT

<b>Waterflow: Django based Web Application</b>	November.2018- February.2019
<ul style="list-style-type: none"><li>• Implemented the web service with Python, Django, WebSocket on MongoDB, AWS for social media website</li><li>• Developed frontend with ReactJS, Webpack for lazy load of components and Ajax based dynamic web pages</li><li>• Built MVC backend with RESTful api by Django and MongoDB, using redis to cache socket and Nginx for scalability</li><li>• Implemented YouTube api, OAuth api, chatting system with WebSocket, word frequency with TF-IDF, picture management with Django-Storage to upload images to AWS S3</li></ul>	
<b>Blockchain: Java based Web Service</b>	January.2019- March.2019
<ul style="list-style-type: none"><li>• Built a blockchain using Java that interacts with remote clients in APIs to verify transactions</li><li>• Implemented methods using RMI, RPC, SOAP and RESTful web service and applied encryption</li><li>• Consolidated the distributed system by encrypting messages with asymmetrical RSA and symmetrical TEA</li></ul>	
<b>Android Application Java based</b>	December.2018- March.2019
<ul style="list-style-type: none"><li>• Developed an Android application with Java, React-native, MongoDB, Flickr api, weather api for picture searching</li><li>• Implemented frontend with React-native, Webpack for UI design</li><li>• Built MVC backend with connecting Flickr api, weather api by MongoDB, storing data for user retrieval</li><li>• Implemented recommended pictures using recommendation algorithm, high-frequency words with TF-IDF in Java</li></ul>	