

# Benjie Tong

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## TECHINICAL SKILLS

- **Languages:** Python, Javascript, Java, HTML5, CSS3, JSX, Typescript, MySQL, C, C++, Shell Script, PHP, Verilog
- **Front-End:** React, Redux, JQuery, Javascript, SigmaJS, ECharts, ES6, D3js, Semantic, Bootstrap, Webpack, Express
- **Back-End:** Flask, Java Spring Boot, NodeJS, Postgresql, Sqlite3, AWS, Nginx, Celery, Elasticsearch, Redis, Tomcat

## PROFESSIONAL EXPERIENCE

**Senior Software Engineer at DiDi** 03/2021-Present

**Senior Software Engineer at Intellipro Group Inc** 11/2020-03/2021  
GEIRINA Grid Eye Web Application San Jose, CA

- Contributed in developing Smart Grid Analysis Platform to help detect real-time and potential risks of grid damping.
- Designed and implemented frontend visualizations and APIs by using Javascript and Leafetjs in Java Spring Boot.
- Accessed machine learning results in MySQL database and processed data for frontend usage by using Java.

**Senior Software Engineer at Graphen Inc** 05/2019-10/2020  
Bank of China Cyber-security Web Application New York, NY

- Contributed in developing cyber-security application to help the bank to detect abnormal behaviors among employees.
- Implemented all frontend logics and interfaces by using React framework and Redux.
- Developed all visualizations of backend calculated results by using visualization tools. (D3JS and 3D Force Graph).
- Helped to do some data cleaning and data processing jobs by using Python and Elasticsearch database.
- Established production servers (based on Flask servers) by using Nginx and WSGI(Gunicorn) with load balancers.

Transunion Credit Prediction Web Application New York, NY

- Contributed in developing an application to predict users' personality and credit by using tweets and other information.
- Designed and implemented all frontend visualizations and APIs by using Echarts and Mapbox in Java Spring Boot.
- Loaded machine learning results into Postgresql database and processed data for frontend usage by using Java.
- Created backend server using Java Spring Boot framework and deployed the whole system into Amazon Web Service.

Bank of China Smart-DD Web Application New York, NY

- Contributed in developing a due diligence web application to help user detect money laundry behaviors.
- Created servers for AI and data collector modules by using Python Flask and asynchronous library Celery and Redis.
- Established production servers (based on Flask servers) by using Nginx and WSGI(Gunicorn) with load balancers.
- Created server for frontend usage to assemble and process data by using Java Spring Boot framework.
- Implemented front-end visualizations for rendering AI results by using Javascript, HTML and CSS.

**Software Engineer at Graphen Inc** 06/2017-05/2019  
Graphen Ardi Graph Database Platform New York, NY

- Led, architected and participated in the design and development of company's own graph database platform Ardi.
- Designed and implemented frontend features for company's products (database, machine learning) by using React.
- Used Python and Java to do data processing by using Elasticsearch and Graph database.
- Created backend server to connect products' APIs and processed results for frontend usage by using Python Flask.
- Established user management of the platform by using traditional SQL database(sqlite3) and Python.

Industrial and Commercial Bank of China Dynamic Graph Application New York, NY

- Contributed in developing an application to detect daily relationships between banks' customers.
- Implemented all front-end logics and interfaces by using JQuery, HTML and CSS.
- Used graph visualization tool SigmaJS and Echarts to visualize the relationships based on data from graph database.
- Designed and helped to implemented interfaces between front-end and back-end (Java).

**Visiting Researcher at IBM T.J Watson Research Center** 02/2017-06/2017  
Bank of China Trade Finance Web Application New York, NY

- Developed a web application to help BOC verify the correctness of their customers' bills to avoid money laundry.
- Implemented crawlers to gather information from internet and compared with the information in the bills using Python.
- Helped implement frontend features and interfaces to show the compared results and evidence by using Javascript.

## EDUCATION

**Columbia University, Fu Foundation School of Engineering and Applied Science** New York, NY  
*MS in Computer Engineering* 09/2015-12/2016

**University of Arizona** Tucson, AZ  
*MS in Electrical and Computer Engineering* 08/2014-05/2015

*BS in Electrical and Computer Engineering* 08/2010-05/2014  
Minor in Mathematics