

# ZIYUAN DONG

✉ tracymyth1994@gmail.com · ☎ (720)-725-9163 · 🌐 <https://github.com/DongZiyuan>

## 🎓 EDUCATION

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<b>University of Southern California</b> , Los Angeles, US	2019 – 2020
M.S. in Computer Science	GPA: 3.8
<b>Nankai University</b> , Tianjin, China	2014 – 2018
B.S. in Computer Science	GPA: 3.7

## 💼 EMPLOYMENT

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<b>Alibaba Group</b> , Hangzhou, China	May 2020 – Dec 2020
<i>Java Development Intern</i>	

- Developed a MiniApp of traffic information query by using Rax(Ali progressive React framework) with high-performance features of compiling at runtime and server-side rendering
- Implemented self-adaptive load balancing and persistent storage to handle more than 10 millions queries based on Dubbo(Microservices Framework) and RocketMQ(Messaging and streaming platform)
- Participate in the development of advanced components for Rax including Canvas, Countdown, Slider and Swiper, and added the function of quickly creating components to Rax IDE extensions

<b>Care Labs</b> , Los Angeles	May 2019 – Aug 2019
<i>Web Development Intern</i>	

- Built the official website with MVC pattern by using React, Node.js and MongoDB
- Design and implement RESTful web services API under the agile strategy
- Ported the website to Android/iOS platform by using React Native
- Used GitLabs and Docker to implement CI/CD pipeline, and used Git to implemented distributed control

## ⚙️ PROJECT

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<b>Visual Analysis of the COVID-19 Cases within LA County</b>	Mar 2020 – Jun 2020
<ul style="list-style-type: none"><li>• Proposed a hybrid model-and-data-driven Bayesian approach to measure the infection risk based on SIR epidemic model, and simulated the effectiveness by using Python package Networkx</li><li>• Used Scrapy and Pandas to collect and process data on the backend, and used Echarts to render interactive and dynamic plots of the result on the frontend</li><li>• Deployed a Flask server onto AWS to automate the data crawling, data processing, and push results to clients</li></ul>	

<b>Classification and Statistical Analysis of the Mobile App Reviews</b>	Jun 2019 – Aug 2019
<ul style="list-style-type: none"><li>• Annotated reviews of mobile applications manually based on software quality that these reviews involved</li><li>• Cleaned the raw corpus with NLTK, and vectorized the text with the methods of Word2vec</li><li>• Constructed an SVM model with SKlearn to classify user reviews into the corresponding category of software quality, and optimized the hyper-parameters to keep the F1 score &gt; 0.9</li></ul>	

<b>Development of the Unified Code Counter Toolset (C++ Version)</b>	Jan 2019 – Apr 2019
<ul style="list-style-type: none"><li>• Implemented the function of counting and differencing the C++ source code based on COCOMO model</li><li>• Completed integration test with GoogleTest, and wrote the compiler optimization guide for user manual</li><li>• Developed the User Interface by using Qt</li></ul>	

## 🔧 SKILLS

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- **Languages:** Python, Java, C/C++, Javascript/Typescript, SQL
- **Libraries:** Angular, React, Node.js, Android SDK, Sklearn, Flask
- **Platforms:** AWS, GitLab, Linux, MongoDB, Docker