

## OBJECTIVE

Experience in web and mobile development and looking for software engineer full-time opportunity in backend and full-stack

## EDUCATION

**Georgia Institute of Technology** Atlanta, GA  
M.S in Computational Science and Engineering GPA: 3.84 / 4.00 Aug. 2016 – Dec. 2018 (expected)  
*Courses:* Artificial Intelligence, Computer Networks, Database Systems, Intro to Java Programming, Operating Systems, Mobile Apps and Service, Simulation and Modeling (Teaching Assistance), Machine Learning,

**Peking University** Beijing, China  
B.E in Energy Resource Engineering GPA: 3.55 / 4 Rank: 4 / 19 Aug. 2012 – Jun. 2016

## EXPERIENCE

**Electronic Arts Inc.** May. 2018 - Aug. 2018  
**Software Engineer Intern** Austin, TX

- Worked in Data Platform department to build a web application by individual to expedite data ETL development timeline. The application provided an efficient Hive SQL and Hadoop Oozie package generation workspace for EA data team.
- Developed a web UI with multiple complex functional forms and tables for users to develop ETL task with support features, replacing manual efforts in Editor with about 4 times more efficiency. ([Angular 6](#))
- Built a backend resources server with RESTful APIs and services to provide business logic data query and Oozie generation by parsing SQL source code and configuration XML files from JSON with Java template API. ([Java Spring Boot](#))
- Designe and optimized MySQL table structure and JSON serialized/deserialized method to map ETL metadata to relational database. This saved more than **70%** storage with flexible database schema. ([JPA](#), [MySQL](#))
- Conducted unit test for repository, service module and MVC layer to ensure the application work as expected;
- The application successfully saved **80%** ETL development time and reduced **100%** SQL semantic error.

**XtalPi Inc.** Jun. 2017 - Aug. 2017  
**Machine Learning Engineer Intern** Beijing, China

- XtalPi is a pioneering pharmaceutical technology company to provide cloud-based computational service for drug Industry.
- Worked in the algorithms group to develop machine learning algorithms to predict molecule properties.
- Implemented matrix based and bag-of-words based model to extract features for data pre-processing.
- Developed machine learning algorithms of Kernel Ridge Regression, Random Forest and Bayesian Regression to predict properties by training over 100000 rows data and reached similar accuracy in research paper. (NumPy, SciPy, scikit-learn)

## PROJECTS

**IoT Android App for Plants Lovers** Jan. 2018 - May 2018

- Designed and developed a mobile app with wireless sensor to provide remote monitor and care instruction for people who to take care of their plant in a team of six. Introduction: <http://plantism.herokuapp.com/index.html>
- Built an Arduino sensor to collect plant temperature and humidity data and uploaded to server in JSON. ([Google Firebase](#))
- Led the Development of the [Android](#) app for both UI and backend. The app bound sensors and fetched monitoring data from Firebase to provide real-time alert, long-term growth trend visualization and care tips.
- Implemented relational/NoSQL database ([SQLite/Realtime Database](#)) to store users, sensors and plants data.

**Local MapReduce System Infrastructure** Sept. 2017 - Dec. 2017

- Designed and Implemented a simplified version of MapReduce infrastructure system for local machine.
- Implemented file sharding, master with dispatch API by remote procedure call and workers with map/reduce API ([gRPC](#))

**Traveling Salesman Problem Algorithms Design** Oct. 2016 – Dec. 2016

- Implemented branch and bound and simulated annealing algorithms for traveling salesman problem in a group of four.
- Optimized global search algorithms with Held-Karp bound from research paper to solve NPC problem size larger than 100.

## SKILLS

**Programming Languages:** Java (Primary), C/C++, Python, JavaScript, TypeScript, HTML5, CSS, SQL

**Web & Mobile Development:** Spring Boot, Node.js, Angular, AngularJS, Android Studio, Google Firebase, MySQL

**Tools & Frameworks:** Git, Jira, SQL workbench, Bash shell, Junit, Maven, D3.js