

# Borui Wang

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## SUMMARY

Master's degree holder and seeking full-time software engineer position. Solid programming skills acquired from well-arranged courses and various projects, especially on web development.

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## EDUCATION

**Northwestern University, Evanston, IL**

*Dec. 2017*

**Master of Science in Electrical Engineering**

GPA: 3.74/4.00

Courses: *Design & Analysis of Algorithms; Data Management & Info Processing; Machine Learning, etc.*

**Zhejiang University (ZJU), Hangzhou, China**

*June 2016*

**Bachelor of Engineering in Control Science**

Overall GPA: 3.66/4.00

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## WORK EXPERIENCE

**AeroSpec Technologies, Boston, MA**

*Oct. 2017-Present*

**Backend Software Engineer**

AeroSpec Tech provides Drone data analysis and corresponding SaaS service for new energy industry.

- Designed and Maintained MySQL database for user authentication and solar site drone data management; Applied vertical sharding to tables with massive data (million level); Deployed database to AWS RDS.
- Acted as a key role in developing production website with **PHP, Java, Bootstrap, Node.js, Redis** and **MySQL** on Apache server; Migrated native PHP website to **Laravel/Lumen** framework.
- Tested website functionality and performance with PHPUnit, Postman, JMeter and PageSpeed Insights; Maintained SSL security, log capturing & analysis, website deployment and testing.
- Developed a PHP PDF drawing library based on fpdf which parses kml/kmz files to a well-organized pdf page; Participated in open-source project geoxml3, a web-side kml parsing library.

**Northwestern University, Evanston, IL**

*Sept. 2016-Dec. 2017*

**Teaching Assistant**

- Graded EECS 317 *Data Management & Info Processing* and hosted Q&A session.

**Adherence Pills, Evanston, IL**

*Apr. 2017-Jun. 2017*

**Software Engineer**

Adherence Pills is a start-up company providing medicine, prescription and appointment monitoring service. A smart pillbox together with remote monitoring software are designed to better assist doctors and patients.

- Acquainted with the use cases, hardware, frontend (**Angular JS**), and backend (**Express, MongoDB**).
  - Migrated web app to Google Cloud Platform, configured database and network, checked main functions and use cases.
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## PROJECT EXPERIENCE

**An Internet of Things Project: Indoor Lost & Found System**

*Apr. 2017-Jun. 2017*

- Built an indoor lost and found system with RFID tags on item, ID reader and Raspberry pi as registration area terminal, smart phone as server, Bluetooth LE for server-client communication.
- Built a web application with Express backend framework, Jade frontend template and MongoDB database, and realized functions of item registration, locating and alarming.
- Further proposed an outdoor extension via IPv6 network on Bluetooth device and interfaces on multiple advanced algorithms or smart home scenarios.

**Extension on FEC Data Map Web Application**

*Jan. 2017-Feb. 2017*

- The web app is organized in three-tier style, in which JS and HTML running on web browser as presentation tier, a **Perl** CGI script running by Apache web server as logic tier, and an Oracle database as data tier.
  - Displayed Committee, Individual, Opinions and Candidate position data of FEC (Federal Election Commission) on a map view via Google Map API, supported separately querying them by election cycles and extended the system by implementing user inviting and opinion collecting functions.
  - Summarized and visualized financial activities of Candidates and Committees including donations and committee transactions together with individual's opinions on elections.
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## SKILLS

Programming Languages: Familiar with PHP, Java, MATLAB;

Capable of Python, JavaScript, SQL, Assemble Language, Perl, C/C++.

Software & Platform: Apache, Laravel, Node.js, MySQL, MongoDB, Google Cloud Platform, AWS, Express