

# Wenhe Ma

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## EDUCATION

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- **Northeastern University** Boston, MA  
*Master of Science in Information Systems* *Sept. 2016 – Dec. 2018*
  - **Courses** : Web Design and UX Engineering, Web Development Tools and Methods, Algorithms, Engineer of Big Data, Cloud Computing, Parallel Programming.
- **Tianjin University** Tianjin, China  
*Bachelor of Engineering in Electrical and Electronics* *Sept. 2012 – Jul. 2016*

## EXPERIENCE

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- **PayPal** Newton, MA  
*Software Engineer Intern* *Jan. - Aug. 2018*
  - **Connector Framework** (Spring Integration), the framework to connect company platform with 3rd party apps.
    - Improved the framework by exposing SOAP web services, saving 90% time of manually configuring via JMX.
    - Implemented SOAP endpoints and generated WSDL file to perform CRUD on RabbitMQ configuration.
    - Wrote unit tests against new endpoints using JUnit and Mockito.
  - **Offer Campaign Manager** (Groovy, GSP, MongoDB), the component for offers creation and redemption.
    - Reduced the time of page interaction by using MongoDB as a temporary storage.
    - Maintained the project health against daily regression test by troubleshooting and fixing bugs.
  - **Cucumber Automated Test System** (Cucumber, Jenkins), automated test system for platform service.
    - Migrated 5 projects from ReadyAPI script to the Cucumber Automated Test Framework.
    - Expanded integration test coverage for different components of the company platform.
- **Northeastern University** Boston, MA  
*Teaching Assistant (CSYE7215 Parallel Programming)* *Sept. - Dec. 2018*

## PROJECTS

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- **Distributed System Deployment** (Docker, Kubernetes, Jenkins) *Sept. - Nov. 2018*
  - Brought up an auto-scaled Kubernetes cluster using kops and deployed a NodeJS webapp with Redis cluster.
  - Set up Prometheus to collect metrics from Redis exporter and monitor the cluster with Grafana.
  - Deployed Jenkins server and built Continuous Deployment pipeline to update application with zero downtime.
- **Assignment Management App** (AWS, Spring Boot, REST API) *Oct. - Dec. 2017*
  - Developed a REST API application that users can manage to-do tasks using Spring Boot.
  - Deployed web services on AWS EC2 with Continuous Integration tools including git and Travis-CI.
  - Sent forget password emails with token stored in DynamoDB using SNS and Lambda as a microservice.
  - Added load balancing resource to CloudFormation and tested with 100 concurrent users created by JMeter.
- **IMDb Website** (Spring MVC, Hibernate, MySQL) *Mar. - Apr. 2017*
  - Built a JAVA/J2EE based web application using Spring MVC, Hibernate and MySQL.
  - Implemented authorization and authentication with Spring Security.
  - Used JQuery to make the website dynamically interactive and AJAX to transfer data with server.
  - Designed and created dynamic responsive front-end of the website with HTML/CSS, JavaScript, and Angular.js.
- **Particle Swarm Optimization Algorithm Simulation** (PSO, Multithread) *Apr. 2017*
  - Implemented the PSO algorithm to solve the travelling salesman problem.
  - Used multi-thread function and created a synchronized block for each particle as one thread.
  - Simulated swarm movement and visualized results of TSP problem with Java Swing.

## PROGRAMMING SKILLS

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- **Languages** : Java, SQL, Unix/Linux shell, Groovy, Javascript, Node.js, HTML, CSS
- **Web Technologies** : GSP, JSP, AJAX, Bootstrap, XML, JSON, REST, SOAP, Tomcat, Servlet
- **Frameworks** : JQuery, Apache, Spring Framework, Hibernate, Mockito, Junit, Cucumber
- **Tools** : MySQL, MongoDB, Cassandra, Redis, GitHub, AWS, GCP, Docker, Kubernetes, Jenkins, Jira