

# Tianbo Lu

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## EDUCATION

**Virginia Polytechnic Institute and State University**, Falls Church, VA  
*MEng of Computer Science and Applications*

Expected May 2023

**Ocean University of China**, China  
*B.S. of Logistics Management*

Jun 2017

## SKILLS

Languages: Java, Python, SQL, JavaScript, HTML/CSS  
Techniques: Spring, MyBatis, Vue, Hibernate, Bootstrap  
Tools: Git, Linux, Maven, Tomcat, Nginx, Docker, IBM MQ, Junit  
Database: SQL server, MySQL, Oracle, Redis

## WORK EXPERIENCE

**Data Engineering Intern**, *Teladoc Health, Inc.*, Remote, US

May 2022 – Aug 2022

- Implemented data quality check table-functions based on Jira tickets requirements with MS SQL.
- Proved the correctness and accuracy of the queries with Python; Documented validations & methods.
- Increased 90% efficiency of the queries by refactoring the code using temp table & window functions.
- Reported to Data Analysts and identify abnormalities in data to prevent tolerance exception.

**Software Engineer**, *Ningbo International Logistics Development Co., Ltd*, China

Oct 2020 – June 2021

- Designed a framework for automated batch processing of XML with Spring Batch, Quartz, dom4j & IBM MQ, achieving 100% decoupling from the core business code.
- Released a tool as a Spring component to Maven private repository for converting FreeMarker templates to PDF based on Spire.Doc.
- Implemented a reproducible background management subsystem with Java, Spring, PowerDesigner & Oracle.
- Developed client and administrator module using Spring & MySQL for backend, AngularJS and JSP for frontend.
- Fixed general bugs caused by database tool migration; built a version for end-to-end test with Jenkins.
- Increased 10% development speed by participating in the preparation of technical documents.

## PROJECT

**Full Stack Online Shopping Store**

Aug 2020 - Sept 2020

- Developed a RESTful shopping website using Spring & MySQL for backend, Vue for frontend.
- Covered a complete order flow from user login, product detail, adding to shopping cart, selecting delivery address, confirming order information to payment functions.
- Achieved authentication and authority management using Spring Security.
- Implemented an account-based & Redis-based shopping cart.
- Created a simple version of the background management module.

**Travel Website Demo**

June 2020 - July 2020

- Implemented resource request & response through Servlet and Jackson.
- Solved the problem of garbled language data in post request using Filter.
- Rendered the data into the JSP page through Ajax to achieve asynchronous interaction.
- Used Nginx to implement reverse proxy and Tomcat cluster load balancing.

**Movie Recommendation System**

Mar 2020 - Apr 2020

- Built a Java-based movie recommendation system that could generate a movie recommendation list based on the 10 movie ratings initially selected by the user.
- Operated classes and subclasses through interface combining with object-oriented and dynamic dispatch ideas.
- Achieved movie data initialization and data sharing through static class fields and used static class as tool class.