

# JIALIN (JENNY) CHEN

134 Clifton St, Malden, MA, 02148 ♦ (+1)-781-502-1204 ♦ [chen.jialin@northeastern.edu](mailto:chen.jialin@northeastern.edu)

<https://www.linkedin.com/in/jialinchen-94> ♦ <https://github.com/phoenixe-nuaa>

## EDUCATION

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### Northeastern University

M.S. in Computer Systems Engineering

*Expected December 2020*

### Nanjing University of Aeronautics and Astronautics

Overall GPA: 3.724

B.Eng. in Electronic and Information Engineering

*Sept 2013 – June 2017*

### Pôle Universitaire Léonard de Vinci

Overall GPA: 3.67

CSC Scholarship in Computer Science

*Jan 2016 - May 2016*

## TECHNICAL STRENGTHS

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### Programming Languages

Java, Python, SQL, HTML, CSS, JavaScript, R, C/C++, Matlab

### Web Technologies

Spring MVC, Hibernate, Flask, MySQL, Redis, Bootstrap, Restful

### Frameworks & Tools

Git, Linux/OS, Spark, Hive, Docker, Elasticsearch, Kubernetes, Airflow

## WORK EXPERIENCE

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### Wayfair LLC.

*July 2019 - Dec 2019*

*Software Engineering Co-op*

- Worked on integrating machine learning models into the existing pricing infrastructure and delivering robust and scalable web services on **Distributed Systems** such as **Spark** and **Kubernetes**.
- Contributed to the refactoring and production of **dockerized** price effect validation system as a **full stack** developer.
- Automated the data pipeline between **Flask**, **Aerospike**, and **Hive**, using **Airflow** as the workflow scheduler.
- Boosted the **ETL** performance by 7X faster running time, via incorporating **PySpark** for parallelism.
- Designed the User Interface presenting dynamic input validation with **Ajax**, form submission, and output display.
- Implemented **Restful APIs** enabling the interaction with front-end for validation, computation and data caching.
- Demonstrated **test-driven development**(TDD) by adding 60+ unit tests applying **PyTest** framework.
- Configured 2 frameworks - **Lightgbm** and **h2o4gpu** on **GPU server**, conducted model training with partitioned datasets, and documented the analysis and comparison with CPU-environment performance.
- Enhanced the current workflow by building fast **CI/CD** pipelines with webhook, **BuildKite**, and **Jenkins**.

## ACADEMIC PROJECTS

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### Language Learning Platform

*Nov 2019 - Dec 2019*

- Developed a **Restful** web service of online course enrollment and management for users and administrators.
- Utilized **Spring MVC** annotations to manage URL mapping with controllers and **Hibernate** for data persistence.
- Incorporated the data layer with **Spring JPA** to enable the generation of relational databases in **MySQL** and established the interfaces of data access layer by creating **DAO** for **CURD** operations.
- Secured the service with password **authentication**, attribute based access control, and session tracking.

### Data Architecture Prototype

*Feb 2020 - Apr 2020*

- Constructed the Flask based **REST API** prototype to illustrate multiple Big Data architectural design patterns.
- Demonstrated **JSON schema** validation and parsing, CURD operations in **Redis**, cache-efficient requests processing with **Etag**, and secure transmission by incorporating **JWT** protocol.
- Integrated with **Elasticsearch** for search and retrieval capabilities and built task queues.

### Biological Growth Simulator UI Application

*Oct 2018 - Nov 2018*

- Created a User Interface application to visualize the biological growth of stems from scratch using **Java**.
- Drew multiple types of **UML Diagrams** for different use cases such as input, rule change, and button controls, etc.
- Implemented various functionalities of startup, rule selection, execution, early termination based on **Swing**.
- Applied **Observer** pattern to handle **one-to-many** relationship between dynamic rule and its dependents efficiently.