JIALIN (JENNY) CHEN

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EDUCATION

Northeastern University	*Expected December 2020*
M.S. in Computer Systems Engineering	Overall GPA: 3.724
Nanjing University of Aeronautics and Astronautics	*Sept 2013 – June 2017*
B.Eng. in Electronic and Information Engineering	Overall GPA: 3.67
Pôle Universitaire Léonard de Vinci	*Jan 2016 - May 2016*
CSC Scholarship in Computer Science	

TECHNICAL STRENGTHS

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

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 with 7X faster running time, via incorporating **PySpark** for parallelism.

· Designed the User Interface presenting dynamic input validation with **Ajax**, form submission, 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

Language Learning Platform   *Nov 2019 - Dec 2019*

· Developed a **Restful** web service for 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 the **Sequence 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** and effectively handled the **one-to-many** relationship between dynamic rule and its dependents under **Observer** pattern.