JIALIN (JENNY) CHEN

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EDUCATION

Northeastern University *Expected December 2020*
Master of Science in Computer System Engineering Overall GPA: 3.724
Nanjing University of Aeronautics and Astronautics *Sept 2013 – June 2017*
Bachelor of Engineering in Electronic and Information Engineering Overall GPA: 3.67
Pôle Universitaire Léonard de Vinci (CSC Scholarship Program in Computer Science) *Jan 2016 - May 2016*

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 services on **Distributed Systems** like **Spark** and **Kubernetes**, specifically, contributed to the construction, production, and maintenance of the **dockerized** price effect validation system as a **full stack** developer.
- Automated the **ETL** process via building the data pipeline between **Flask**, **Aerospike**, and **Hive**, and boosted the performance by 7X using **PySpark** for parallelism, with **Airflow** serving as the workflow scheduler.
- Designed the front-end UI which performs dynamic identity and file validation using **Ajax**, form submission and data caching, display of the user information, results and rankings by hitting endpoints.
- Demonstrated **test-driven development** by adding 60+ unit tests applying **PyTest** and implemented various **APIs** of back-end modules such as input data validation, ETL, and computation components.
- Configured 2 frameworks - **Lightgbm** and **h2o4gpu** on **GPU server**, completed model training with partitioned datasets, and documented the analysis and comparison with CPU-environment training performance.
- Enhanced current workflows by building fast **CI/CD** pipeline 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.