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PROGRAMMING SKILL

Java · Spring · Distributing System · SQL · C++ · Python · Streaming · Kafka · Spark · Docker

EDUCATION

University of Waterloo(GPA: A+)

Sep 2020 - Dec 2021

Master of Engineering, Computer Engineering

Courses: Algorithm, Distributed & Network-Centric Computing, Machine Learning, OOD Design, Software Testing, Data-Intensive Distributed Analysis, Data & Knowledge Modelling & Analysis, Methods & Tools for Software Eng., Database System.

University of Waterloo(GPA: A-)

Sep 2015 - May 2017

Master of Engineering, Electrical Engineering

Northeast Electric Power University(GPA: A)

Sep 2011 - Jun 2015

Bachelor of Engineering, Electrical Engineering

WORKING EXPERIENCE

Software Engineer Intern | emData

Aug 2020 - May 2021

- Worked on login module in company's Spring framework, Use annotations to complete user login module.
- Worked on batch acceptance of passes and self-service timing inquiries in the personal pass business processing module.
- In the data statistics module, use elasticsearch and kibana to perform statistical analysis on the data

PROJECT EXPERIENCE

Movie Rating System

Sept 2021 - Dec 2021

- Build a movie rating system by using Hadoop and Spark(Scala).
- Calculate users with highest ratings and total number of ratings.
- Design an algorithm to calculate the similarity between movies.

B2C Shopping Web Application

May 2021 - Sept 2021

- Build a microservice web application for users to shop and order items online.
- Improved user experience by staticized the frequently visited pages by users.
- Build a messaging subscription service that allowed microservice component to create, send, receive and read messages.
- Complete the shopping cart data storage and order generation subsystem.
- Built a large-scale database with NoSQL platform MongoDB, queries data into JSON-like documents to implement article comment function.

The Game of Biquadris

May 2021 - Sept 2021

- Build a Tetris like game Biquadris, with two display boards and can calculate scores, set the level of hardness and trigger special actions for the game.
- Design text-based command Interpreter for the game for user to operate.
- Design the game level from the easiest to the hardest which make the game more interesting to play.
- Design the special action and extra features of the game which players can choose her/his own action.

Credit Card Checker and Calculator

May 2021 - Sept 2021

- Write a program that will process a series of zero or more credit card transactions, validating the credit card and calculate the balance of the credit card.
- Parsing credit card information, using Luhn Algorithm method for the validation of VISA credit card.
- Developed a credit card calculator that calculate the current balance of the credit card which allow new payment and purchases each month.

Real-time Rumour Analysis with PySpark

Jan 2021 - April 2021

- Work on RumorEval Dataset, train Machine Learning models and apply them in real-time to tweets being posted on twitter.
- Develop an algorithm using Spark SQL, Spark ML to identify the stance of a tweet with regards to a rumour tweet.

- Develop a Rumour veracity classification machine which achieve more accuracy compare with other models.
- Set up a script to Streaming analysis the real-time tweets and stored the result on the disk.

Vertex Cover Algorithms Analysis

Sept 2020 - Dec 2020

- Analyze 3 different approaches to the vertex cover problem including the algorithm, running time and performance.
- Implemented the CNF-SAT-VC algorithm and test its performance and correctness.
- Improving the performance of CNF-SAT-VC algorithm to implemented two additional APPROX-VC Algorithms and compare it with the CNF-SAT-VC algorithm.