Zhiqi Qiao (Maggie)

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EDUCATION

Computer Science Major, BSc — GPA: 3.74/ 4.33
Simon Fraser University, Burnaby, BC — Sep 2016-May 2021

TECHNICAL SKILLS

- Programming Languages: C++, C, Python, SQL, Java, JavaScript, HTML, CSS, Go, Haskell
- Familiar with infrastructure as Code in Terraform
- Proficient in programming in different Operating Systems including Windows and Linux
- Familiar with applications such as Microsoft SQL Server Management, Git, Visual Studio Code, Jira, Android Studio, PowerBI, Microsoft Office, RStudio, MATLAB

WORK EXPERIENCE

Associate Software Developer - Cloud Solutions

Teradici, Burnaby, BC — Sep 2020-Dec 2020

- Developed, contributed, and maintained Terraform and Python cloud deployment scripts
- Utilized public clouds (Google Cloud and Amazon Web Services) daily
- Worked and communicated with overseas software tester for bug fixes
- Provided support to other staff members for using cloud deployment scripts
- Project repo: https://github.com/teradici/cloud_deployment_scripts

Business Intelligent Developer

Aurora Cannabis Inc, Vancouver, BC — Jan 2019-Aug 2019

- Designed and developed reports and dashboards with large data volume using PowerBI, had many experiences in data visualization and storytelling
- Wrote queries to export data from databases using Microsoft SQL Server and PostgreSQL and generated reports to support other teams
- Preformed data preprocessing on complex datasets to support senior data Analysts.
- Automated reporting process using Python script, SSMS and Microsoft flow
- Designed data collection application using PowerApps
- Wrote unit tests for applications and websites using JavaScript

PROJECT EXPERIENCE

Database Design

Database Systems, SFU — Jan 2018-Apr 2018

- Constructed a database for airline using Microsoft SQL Server Management Studios and JAVA JDBC to store data
- Created meaningful constraints, triggers, assertions to allow modification such as update, delete and insert data in the database
- Designed concise UI using JAVA JDBC for customers to be able to search flight instance, make a reservation, book flight tickets, and check available seats

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PROJECT EXPERIENCE (CONT)

School Walking Group APP Design

Intro to Software Engineering, SFU May 2018-Aug 2018

- Designed an APP using JAVA that allows students to create or join a walking group to walk to school together, and allows parents to monitor children's location
- Added map from Google in App that allows icon adding and do location tracking
- Used API to manage the relationship between the server and multiple users such as sending messages and getting permissions
- Designed Singleton to make application's structure explicit
- Created an in-app store that allows users to buy products such as theme, background, and music with credits
- Designed concise and artistic UI which makes the App more user-friendly

VanEat Website for Local Restaurant Collection

Web-based Information Systems, SFU May 2020-Aug 2020

- Designed the VanEat website for Vancouver local restaurants collection, allowed users to log in and view the detailed information of restaurants by searching the name or by categories
- Implemented backend of the website using Express as the full-stack MVC web frame, allowed backend maintainer to upload, edit, and delete restaurants information, categories and popular dishes
- Managed website data storage using MongoDB and image storage using AWS S3 buckets
- Used API to communicate the backend with the frontend
- Front End: http://vaneat.herokuapp.com/restaurants More demo and Backend demo can be found in my website http://maggieqiao.com

Database Management System Design

Database Systems II, SFU Sep 2019-Dec 2019

- Designed database management system with an embedded library interface using C++
- Used buffer as a temporary storage area in main memory to support data access, used LRU buffer frame replacement policy to improve data access efficiency
- Implemented skip list as indexing to optimize data retrieval operations
- Designed lock manager and latches to support concurrent transactions
- Wrote logs to support recoverability and cascading aborts when the crash happened

Multi-Agent Path Finding

Intelligent Systems, SFU Jan 2020-Apr 2020

- Implemented multiple algorithms including A*, Enhanced Partial Expansion A*, Priority-Based Search and Conflict-Based Search to find the optimal path for multiple agents in Python
- Compared algorithms in the aspects of time requirements, nodes generated/expanded space (memory) requirements, and success rate using multiple benchmark maps
- Analyzed algorithms and maps to seek for outperforming or underperforming type of instances for certain algorithms

AWARDS

- Open Scholarship Sep 2018-Sep 2020
- International Entrance Scholarship Sep 2017, Jan 2018