XUEJIAO QING

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EDUCATION

Carleton University Ottawa, Canada

Bachelor of Computer Science, 11.12/12.00 CGPA, Dean's Honour List 2022–2023

09/2021 - 01/2025

PROFESSIONAL EXPERIENCE

Ericsson Ottawa, Canada

5G Software Developer

05/2023 - 08/2024

- Developed a new test case for a 5G feature called Fast CA, which involved creating a set of bean files for automated testing, adjusting existing Java code, coordinating with colleagues on cell relation design and resource utilization, and conducting manual testing to obtain an accurate verdict
- Executed a series of manual and automated tests to achieve the following goals: adjusted the existing test case throughput, verified whether the FDM feature impacted other capacities to support customers in optimizing network design for maximum efficiency, replicated specific issues identified in customer labs, and collected relevant counters and traces while running TCP and UDP traffic to assist in troubleshooting
- Created configuration files necessary for setting up hardware devices, ensuring they can run two specific test cases
- Migrated an existing test case from one testing framework to another
- Developed a Python script to retrieve revision states for certain products and automatically update them in a designated file
- Triggered the nightly sanity test automatically using Jenkins, employing the latest software version for testing

School of Computer Science, Carleton University

Ottawa, Canada

Undergraduate Teaching Assistant

09/2022 - 04/2023

- Conducted 2 tutorial sessions and weekly office hours to help students familiarize themselves with Java syntax, analyze control flow, and debug errors
- Graded assignments and marked exams

PROJECTS

 $\underline{\text{GitHub}} \mid \underline{\text{Website}}$

- Created a full-stack web application with a React frontend and an Express backend, allowing users to register, log in, and manage their to-do list items
- Integrated MongoDB to store user data and to-do items, enabling CRUD operations to manage the to-do list
- Handled authentication using JWT and bcrypt, and deployed both the server and client on Vercel, utilizing CORS and environment variables to make the project functional

AED Simulation GitHub | Demo

- Utilized the Qt framework to build a graphical user interface that enables user interaction to simulate the Automated External Defibrillator (AED) process
- Employed Qt's signal-slot mechanism to manage communication between the UI components and the AED system
- Used QThread to manage patient data asynchronously and QTimer to periodically update the AED's state and display, ensuring real-time interaction while keeping the UI responsive

Ghost Hunting Simulation

GitHub

- Allocated memory dynamically and statically to store different objects and tested functionalities by calling Valgrind to ensure zero memory leaks
- Built concurrent programming by running multiple threads to enable four hunters to hunt one ghost simultaneously
- Created Makefiles to organize code compilation, helping manage the projects automatically

Electronic Store Application

GitHub

- Built a GUI (Graphical User Interface) application with JavaFX by applying the MVC (Model View Controller) paradigm to enhance user-friendliness
- Created objects through inheritance and simulated a checkout system that allows users to add and remove items from the shopping cart, complete sale and reset store

SKILLS

Languages: Java, Python, C, C++, JavaScript, SQL, Shell, Haskell, Prolog

Developer Tools & Frameworks: Git, Gerrit, Maven, Jenkins (CI/CD), Linux/Unix (Moshell), MongoDB, PostgreSQL, React, Express, NumPy, Pandas, Vercel, Netlify

Certifications: Data Analysis with Python – freeCodeCamp