Timothy Chen

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EDUCATION

McMaster University   December 2023
Bachelor of Engineering and Management in Software Engineering   *Hamilton, Canada*

EXPERIENCE

Software Developer   January 2022 – December 2022
Royal Bank of Canada   *Toronto, Canada*
- Repaired a Python monitor script to automatically push crucial network details of key resources to Confluence, significantly improved accessibility for network teams and increased efficiency by 80%
- Redesigned the NLU model of the chatbot deployed on Webex and Slack, enabling it to understand phrases and engage in meaningful conversations with employees, surpassing the constraints of one-word commands, resulting in an 80% increase in user engagement and interaction
- Conducted extensive research and compiled requirements for enhancing the NLU model to comprehend a broader spectrum of network requests, then presented the project along with the proposed next steps to directors and managers across the network infrastructure team

Undergraduate Teaching Assistant   September 2021 – December 2021
McMaster University   *Hamilton, Canada*
- Organized and led 4 interactive tutorials that taught concepts related to parallel programming to 100+ students, with a focus on optimizing benefits and preventing race conditions
- Graded and provided feedback on over 400 assignments and exams, evaluating students on key theories and techniques from the course
- Created programming questions in a range of languages (Python, Java, C, and Go) to expose students to different methods and techniques used in each language

Technical System Analyst   May 2021 – August 2021
Royal Bank of Canada   *Toronto, Canada*
- Implemented Blue Prism test automation processes to verify returned metrics and ensure web service availability post-updates, resulting in a 95% reduction in the time required to complete each test
- Enhanced operational efficiency through Ansible playbooks using YAML, automating server monitoring and file removal tasks and entirely eliminating the need for manual intervention in completing these tasks

Automation Developer   May 2020 – August 2020
Nokia   *Ottawa, Canada*
- Established a new test bed to automate manual test cases, measuring over 20 exposed metrics returned from POST request calls made against internal network services
- Revised Perl scripts from existing test beds to encapsulate a Python script, enabling seamless execution of test cases within the internal regression framework and leading to a 20% reduction in manual testing after each update

Application Developer   January 2020 – April 2020
Beth Tikvah   *Hamilton, Canada*
- Designed and implemented a user-friendly scheduler using VBA that streamlined and synchronized all care home schedules, ensuring a caregiver was always present every hour, and resulted in a 90% reduction in errors
- Efficiently reduced time spent on manual updates by 80% and eliminated the need for care home managers to cross-reference multiple schedules, through the implementation of an algorithmic scheduling solution

PROJECTS

Healthy Habits | JavaScript · React Native · Git
- Collaborated with 5 other students to develop a mobile application that promotes healthy physical and mental lifestyles with six interactive activities, utilizing the Presentation–Abstraction–Control architecture

ReSprint | C# · HTML · CSS · TypeScript · .NET · Git
- Refactored a window web application from VBA to C# for efficient processing and storage of data on structural changes in a material over time due to applied heat
- Added a real-time graph for tracking and monitoring the measured and calculated values of the material

SKILLS

Languages: Python · Java · JavaScript · Go · C · C# · Perl · VBA · SQL · HTML · CSS
Frameworks & Libraries: React · React Native· Flask · RASA · Docker · .NET
Developer Tools: Git · VSCode · Visual Studio · Eclipse · Confluence · Jira