# TIMOTHY CHEN

# Software Engineer

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## SKILLS

**Languages:** Java  $\cdot$  Python  $\cdot$  JavaScript  $\cdot$  Golang  $\cdot$  C  $\cdot$  C#  $\cdot$  SQL  $\cdot$  HTML/CSS  $\cdot$  Swift

Frameworks & Libraries: React  $\cdot$  ReactNative  $\cdot$  Flask  $\cdot$  RASA

**Developer Tools:** Git · VSCode · VisualStudio · Eclipse · Confluence · Jira

# **EDUCATION**

## **McMaster University**

Hamilton, Canada

Bachelor of Engineering and Management in Software Engineering

August 2017 – December 2023 (Expected)

#### EXPERIENCE

# **Software Developer**

January 2022 – December 2022

Royal Bank of Canada

Toronto, Canada

- Conducted research and gathered requirements to improve the natural language understanding capabilities of an existing **RASA** chatbot framework specialized in understanding requests for network
- Successfully redesigned the chat-bot framework, enabling it to hold meaningful conversations with employees and understand their network requests, resulting in it being used by over 100 active users
- Repaired an existing monitor script in **Python**, implementing a system that will push network details to confluence and improve ease of access for network teams by 50%

## **Undergraduate Teaching Assistant**

September 2021 – December 2021

McMaster University

Hamilton, Canada

- Organized 4 interactive tutorials which taught concepts related to parallel programming, with a focus on optimizing benefits and preventing race conditions
- Graded and provided feedback on over 300 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 **Golang**) 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 test automation processes using **Blue Prism** to verify returned metrics and ensure the availability of web services after updates
- Reduced the need for manual labor in server monitoring and file removal tasks by creating **Ansible** playbooks in **YAML**
- Planned and produced an introduction video, as well as written documentation, to familiarize other teams and clients with the services provided by the team

## **Automation Developer**

May 2020 – August 2020

Nokia

Ottawa, Canada

- Developed a new test bed to automate manual test cases and measure over 20 exposed metrics provided by internal network services
- Revamped existing test scripts to verify returned messages for corresponding events from POST request calls made against the network
- Modified scripts written in **Python** and wrapped in a **Perl** script, which ran in an internal regression framework, to verify the correctness of network messages

## **Application Developer**

January 2020 – April 2020

Beth Tikvah

Hamilton, Canada

- Designed and implemented a user-friendly scheduler interface using **VBA**, which streamlined and synchronized all care home schedules and reduced errors by 90%
- 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
- Successfully implemented an algorithmic solution that ensured a caregiver was always present every hour, receiving 100% positive feedback from users