

# George Alex Mo

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## Education

### B.E. in Software Engineering

MCMASTER UNIVERSITY

*Hamilton, ON*

*Graduated Apr. 2020*

- **Notable Coursework:** Data Structures & Algorithms, Databases, Concurrent Programming, Operating Systems

## Skills

**Programming Languages** Golang, C#, JavaScript, SQL, HTML, CSS, Ruby, Python, Java  
**Frameworks** React/Native, Bootstrap, .NET, MSTest, NodeJS, Rails  
**Tools** MySQL, Docker, Git, Kubernetes, Atlassian Series, JetBrains Series

## Experience

### Junior Software Engineer

TOOGOOD FINANCIAL SYSTEMS INC.

*Markham, ON*

*May 2019 - April 2020*

- **Trading Software: QuarterBack (C#, MySQL)**
  - Enhanced software core logic and data flow, responsible for preliminary quality assurance and integration testing
  - Designed new MySQL schema to manage client information and update history through after update triggers
  - Updated existing schema to improve storage efficiency; reduced total space consumption by approximately 16%
  - Added unit tests to ensure functional equivalence for updated schema and correctness for new schema
  - Worked in an agile environment consisting of two-week sprints utilizing JIRA and Confluence
- **Trading Software UI Overhaul: Evolution (C#)**
  - Led a team of 3 and coordinated with design, QA, and management; responsible for the full delivery process
  - Refactored integration with existing UI software into a fresh alternative (Original: Syncfusion | Replacement: ComponentOne)
  - Refactored data structures and created proxy data structures to accommodate for new interface elements and other changes
  - Slashed administrative costs on software licensing by over \$10,000 per year

### QA Engineer Intern

TOOGOOD FINANCIAL SYSTEMS INC.

*Markham, ON*

*May 2018 - August 2018*

- **Automated Testing: Evolution (C#, MSTest)**
  - Individually rebuilt automated test suites using MSTest and led other co-op students working with unit and integration testing
  - Optimized various search algorithms and improved testing efficiency by 28% to meet speed requirements
  - Redrafted and updated the company training manual for testing automation; hosted onboarding sessions for new employees
  - Personally re-recruited by head of software department in following year under a full-time position

## Projects

### Online Photo Gallery

*Jan. 2020 - Jun. 2020*

- **Webservice: <http://www.wspicshare.com> (Golang, JavaScript, MySQL, Bootstrap, React/Native, and Docker)**
  - Online service dedicated for photographers to upload, edit, and share photos in an organized and effective manner
  - Implemented Bootstrap-based web frontend and ReactNative-based mobile frontend for iOS & Android
  - Implemented push notifications and automated emails to notify users when on signup and account changes
  - Implemented multiple backend micro-services in Golang using Amazon S3 for storage and Amazon Lambda for processing
  - Containerized web frontend and backend micro-services with Docker and hosted on AWS
  - Ensured information security with JWT, password encryption, designed against attacks such as SQL injections & DDoS

### NLP Project

*Dec. 2019 - Present*

- **AI ChatBot: Sapphire (Golang, MySQL, with Test Driven Development Methodology)**
  - Developing a conversational agent to understand and use language through associations of words, objects, and actions
  - Seeking to develop algorithm(s) separate from pre-existing mainstream models such as Recurrent Neural Network (RNN).
  - Currently interprets and generates sentences through a graph-based approach; utilizing ideas from reinforcement learning