

# Nian Liu

2B Computer Science | 20562478  
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## TECHNICAL SKILLS

### PROGRAMMING LANGUAGES

#### PRIMARY

C/C++, C#, JavaScript, Bash

#### FAMILIAR

Java, Python, CSS, HTML

### OTHER LANGUAGES

JSON, XML

### LIBRARIES AND APIS

XNA Game Studio, Selenium, NUnit, JQuery, Newtonsoft.Json

### APPLICATIONS

SQL Server Management Studio, Photoshop, Office 365, Confluence, Jira, Subversion

### OPERATION SYSTEMS

Microsoft Windows, Mac OS

## EDUCATION

### UNIVERSITY OF WATERLOO

CANDIDATE FOR BACHELOR OF  
COMPUTER SCIENCE

Step. 2014 - present  
Waterloo, ON

## RELEVANT COURSES

### COMPUTER SCIENCE

Computer Organization & Design

Data Structures & Data Management

Elementary Algorithm Design & Data Abstraction

Foundations of Sequential Programs

Logic and Computation

### MATHEMATICS

Intro to Combinatorics

Linear Algebra

Statistics

## WORKING EXPERIENCE

### SOFTWARE DEVELOPER/ANALYST | TRAPEZE GROUP

January 2016 - April 2016 | Mississauga, ON

- Worked on Novus platform, an enterprise-level web software system for public transit closely with core Research and Development Team.
- Improved and extended test framework for Novus using Selenium and NUnit with C# language.
- Implemented functionalities including database management, data-driven-test generation and failure log into the test framework.
- Discovered and investigated several bugs and defects in product-level applications.
- Assisted co-op colleague with Java and JavaScript web development

### OFFICE 365 DEVELOPER | 2TOLEAD

May 2015 - August 2015 | Remote

- Worked on proof of concepts of utilizing Microsoft Graph in Office 365.
- Created Sharepoint JavaScript web part snippets with Microsoft Graph data.
- Used Ajax and REST API services to retrieve and post data in Sharepoint.

## PROJECTS

### CC3K | A ROGUE-LIKE TERMINAL GAME IN C++

December 2015 | University of Waterloo

- Designed the whole architecture for the project
- Applied MVC, Decorator and Visitor design patterns.
- Created an UML of design.
- Implemented start menu with ASCII arts
- Implemented the game with memory-leak-free and exception-free guarantees

### SHAREPOINT QUEST | A SHAREPOINT MANAGEMENT WEB APP

August 2015 | 2toLead

- Sharepoint web part for users to post and check quests.
- Built a Sharepoint customize list to store user quest data.
- Utilized Microsoft Graph to automatically check quest status.

### POKEMON BATTLE | A POKEMON THEMED 2-PLAYER GAME IN C#

December 2013

- Used XNA Game Studio 4.0 Framework.
- Implemented sprite action animations, game music and sound effects.
- Offered two input options include keyboard and Xbox controller.

## GRANTS AND AWARDS

### PRESIDENT'S SCHOLARSHIP

UNIVERSITY OF WATERLOO | 2014

\$2,000 entrance scholarship for achieving admission average 90% - 94.9%.

### CANADIAN COMPUTER COMPETITION

UNIVERSITY OF WATERLOO | 2014

Ranked in the top twenty-five percent of contestants.