Charles Zhang

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University of Waterloo | Candidate for B. Computer Science 2023

Summary of Qualifications

- Experience working in professional software development, two iOS apps published to the Apple App Store, three years' experience on Python side projects, built three active websites
- Highly proficient in Python, C++, Swift, Unix Scripts, Typescript, JavaScript, Web-Development, Git, Dev-Ops, Atlassian Suite, Xcode, Docker, software documentation, and project management
- Developed strong leadership and communication skills as President of the Lisgar DECA Business Club and Head of the Lisgar Math Contest Club for two years

Education

University of Waterloo – Waterloo, Ontario   Expected April 2023
- 93% GPA (Dean's Honours List), President's Scholarship of Distinction

Lisgar Collegiate Institute – Ottawa, Ontario   September 2014 – June 2018
- 98% GPA (Lisgar Silver Medal Recipient), enrolled in the gifted program
- Scholarships for Highest Grade 12 Academic Average, Highest Performance in Grade 12 Math
- Math Kangaroo 11th in Canada, 2nd Ottawa; Avogadro Chemistry Contest 97th percentile in Canada

Completed DELF B1 French Certification   November 2017

Work Experience

Software Development Intern | Ciena – Ottawa, Ontario   July 2018 – August 2018
- Automated the migration of over 80,000 files from the DOORS legacy database to the new Jama database system using a combination of Python and DXL
- Created responsive, accessible internal web-apps with Angular CLI and Angular Materials
- Gained experience with Git, database systems, the Dev-ops Lifecycle, and professional collaboration

Projects

Article Generator iOS App   July 2018 – January 2019
- Used a combination of Keras, Tensorflow, and CoreML to create an iOS App that allows users to generate text using a four layer Long Short-Term Memory (LSTM) Recurrent Neural Network

Tetris Neural Network   March 2017
- Self-taught Python and Machine Learning to develop an AI that plays Tetris using a three-layer neural network and a Fitness-Proportionate Genetic Algorithm

EzJigsaw IOS App   August 2017 – October 2017
- EzJigsaw is available on the IOS app store and was downloaded over 300 times in the first month
- Practiced model-view-controller design, project management, and version control

Arduino Development   October 2016 – January 2017
- Worked to integrate hardware and software to develop an autonomous maze-solving robot using an Arduino Microcontroller
- Implemented a custom depth-first-search algorithm to map and solve a physical maze

Clubs

President | Lisgar DECA Business Club   September 2016 – July 2018
- Led a team of five student executives and ran training sessions for 40 students in the DECA team. In 2018, 36 students advanced to the provincial competition and two advanced to the international level
- Managed thousands of dollars fundraising and planning for the provincial DECA trip in Toronto
- Founded a stock market challenge and a finance-themed escape room to promote financial literacy

Club Head | Lisgar Math Contest Club   September 2016 – July 2018
- Delivered interactive math lessons in topics such as number theory to over 25 students each week
- Managed communications and promoted the Math Department through social media and email

Founder | Lisgar Game Jam   March 2017
- Worked closely with the Lisgar Computer Science Department to found the Lisgar Hackathon
- Created and ran workshops in Processing, a Java-based language, to introduce students to coding