

# Charles Zhang

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## Education

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### University of Waterloo

- Bachelor's of Computer Science (co-op program)
- 93% GPA (Dean's Honours List)
- President's Scholarship of Distinction

Expected Graduation: April 2023

### Lisgar Collegiate Institute

September 2014 – June 2018

- 98% GPA (Lisgar Silver Medal Recipient), enrolled in the gifted program
- William Arid Ross Scholarship for highest performance in Grade 12 Mathematics
- Adam Ballantyne Scholarship for highest Grade 12 average
- Math Kangaroo: 11<sup>th</sup> in Canada, 2<sup>nd</sup> Ottawa; Avagadro Chemistry Contest 97<sup>th</sup> percentile in Canada;

### Completed DELF B1 French Certification

November 2017

## Work Experience

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### Software Developer, Ciena

July 2018 – August 2018

- Developed software tools to migrate technical requirements from the DOORS legacy database to the new Jama database system. Used a combination of DXL and Python.
- Worked with Angular CLI and Materials to develop responsive and accessible internal web-apps
- Gained experience with Git, database systems, Dev-ops Lifecycle, and collaboration

## Projects

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### Article Generator IOS App

July 2018 – January 2019

- Used a combination of CoreML, Keras, and Tensorflow to create an IOS App that allows users to generate text using a four layer Long Short-Term Memory(LSTM) Recurrent Neural Network trained on a news database of over 500,000 words

### Tetris Neural Network

March 2017

- Self-learned Python and Machine Learning theory, developed an automated AI to play Tetris using a three-layer Neural Network and a Fitness Proportionate Genetic Algorithm.

### Summer IOS and Android Development

August 2016 – October 2017

- Developed two separate mobile applications, EzJigsaw for IOS and TapeMeasure for Android. EzJigsaw is available on the IOS app store and was downloaded over 300 times in the first month.
- Practiced project management, testing, object-oriented programming, and revision control

### Arduino Development

October 2016 – January 2017

- Worked with an integration of hardware and software to develop an autonomous maze-solving robot

## Clubs

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### President, Lisgar DECA Business Club

September 2016 – July 2018

- Lead a team of 5 student executives and ran training for the DECA Team of 40 students
- 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

- Deliver interactive math lessons in topics such as number theory to over 25 students each week
- Organize and manage math department events, including planning, promotion, and execution.

### Founder, Lisgar Game Jam

March 2017

- Worked closely with the Lisgar Computer Science Department to bring a hackathon to Lisgar
- Created and ran workshops in Processing, a Java based language, to introduce students to coding

## Skills

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- **Languages:** English and French
- **Programming:** C++, C, Python, Swift, Java, JavaScript, HTML, CSS, Typescript, DXL, Arduino
- **Technical:** Git, Atlassian Suite, Dev-Ops, Docker, Scripting, Xcode, Android Studio, DOORS, Microsoft Office, Photoshop