

# Evan Zheng

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🏠 [evanzheng.com](http://evanzheng.com)

🐙 [github.com/evtyz](https://github.com/evtyz)

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## Skills

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**Languages:** Java, Python, JavaScript, TypeScript, SQL, C#, VBScript, C, HTML, CSS

**Technologies:** React.js, Node.js, ASP.NET, SQL Server, Maven, Gradle, Android, Git, Firebase, NumPy, Bootstrap

## Experience

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### Ivy Global Education

Software Engineering Intern

*Toronto, ON*

*May 2021 - Present*

- Improved performance, mobile responsiveness, and SEO ranking of 120+ ASP.NET/C# pages with 200,000+ total monthly views
- Developed a SQL Server cleanup script that optimized tables with almost 9,000,000 entries, reducing size by 95%
- Designed and built classroom administration and analytics tools that manage 1,000+ students across the US and Canada
- Integrated test-taking platforms with classroom organization services, allowing instructors to administer exams virtually

### Loo Labs

Frontend Developer

*Waterloo, ON*

*May 2021 - Aug 2021*

- Worked with a partner to plan, implement, and test the entire frontend of Waterpark, a Node.js web app that helps Waterloo students discover and review on-campus amenities
- Used React.js and TypeScript to build a responsive UI for browsing amenities, reading comments, and submitting reviews

## Projects

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### Shapevolve

[evanzheng.com/Shapevolve](http://evanzheng.com/Shapevolve)

- Published a Python 3 library that recreates artworks with circles using a genetic algorithm
- Used NumPy, OpenCV, and Python multiprocessing libraries to improve efficiency by 2x over other implementations
- Prototyped on Jupyter Notebooks, packaged using PyInstaller, and released on PyPI

### Three-Body Simulation

[evanzheng.com/threebodysimulation](http://evanzheng.com/threebodysimulation)

- Developed a JavaFX desktop app to computationally simulate the three-body problem in orbital mechanics
- Optimized app performance and fixed several concurrency issues to ensure the simulation was responsive in real-time
- Packaged into a native Windows app using GraalVM and a cross-platform JAR file using Apache Shade and Launch4J
- Used Maven build tools and Apache Commons Math and CSV libraries, as well as Bootstrap CSS styling

### BiblioBarcode

[evanzheng.com/BiblioBarcode](http://evanzheng.com/BiblioBarcode)

- Built an Android app that scans photos of book barcodes to create a bibliography stored on a SQLite database
- Written using Java and SQL on Android Studio, with Gradle build tools
- Utilized the Google Books API and the Google Mobile Vision Barcode API, among others

## Awards

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**Top 100**, Canadian Mathematical Olympiad

*March 2021*

**Distinction, Top 10%**, Canadian Computing Competition (Senior Division)

*February 2021*

**Gold Division**, USA Computing Olympiad

*March 2020*

## Education

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### University of Waterloo

Bachelor of Computer Science (Co-op)

Cumulative Average: 97.4%, GPA: 4.0/4.0

*Waterloo, ON*

*September 2021 - Present*