

# Evan Zheng

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

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

## Skills

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**Languages:** Java, Python, JavaScript, SQL, C, HTML, CSS

**Technologies:** React.js, Node.js, Maven, Gradle, Android, SQLite, Git, Firebase, NumPy, Bootstrap

## Projects

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### Personal Website

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

- Built a responsive personal website using HTML, CSS, Node.js, React.js, and Bootstrap
- Implemented functionality for contact forms and reCAPTCHA, completely eliminating spam
- Deployed using Github Pages and Google Domains

### 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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**Direct Qualification, Top 50**, Canadian Mathematical Olympiad

March 2021

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

February 2021

**Qualification to Gold Division**, USA Computing Olympiad

March 2020

## Work Experience

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### Kumon Math and Reading Centre of Vaughan- Dufferin Hill

Vaughan, ON

Assistant Teacher and Grader

September 2019 - March 2020

- Taught mathematical concepts from basic counting up to integral calculus for students aged 5-18
- Helped students develop writing and literacy skills as part of Kumon's reading program

## Education

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### St. Theresa of Lisieux CHS

Richmond Hill, ON

Ontario Secondary School Diploma

September 2017 - June 2021

- Principal's List with a cumulative average of 99% during the 2020-2021 school year

**Online Courses:** Harvard CS50x, Stanford University Machine Learning