

# Evan Zheng

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

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

## 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

August 2020

[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

July 2020

[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

June 2020

[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

March 2020

[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.

## Honors & Awards

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

March 2021

**Distinction, Top 10%**, Canadian Computing Competition

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