

Evan Zheng

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Skills

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

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

Projects

Personal Website

August 2020

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

- 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

- 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

- 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

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

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

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