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.

Honors & Awards

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

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