Evan Zheng

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Skills

Languages: Java, Python, JavaScript, TypeScript, SQL, C#, VBScript, C, HTML, CSS, LaTeX
Technologies: React.js, Node.js, ASP.NET, SQL Server, Maven, Gradle, Android, Git, Firebase, NumPy, Bootstrap

Experience

Ivy Global Education *Toronto, ON*
Software Engineering Intern *May 2021 - Present*

- Improved performance, mobile responsiveness, and SEO ranking of 120+ ASP.NET/C# webpages with 200,000+ total monthly views
- Developed a SQL Server cleanup script that optimized tables with 9,000,000+ rows, reducing size by more than 95%
- Used JQuery and Bootstrap to build online administration and analytics tools that manage 1,000+ students across North America
- Integrated test-taking platforms with classroom organization services, allowing instructors to administer exams virtually

Loo Labs *Waterloo, ON*
Frontend Developer *May 2021 - Aug 2021*

- Co-built the frontend of Waterpark, a Node.js web app that helps Waterloo students discover and review on-campus amenities
- Used React.js, Styled Components, and TypeScript to design, develop, and test a responsive UI for browsing amenities, reading comments, and submitting ratings

Projects

Shapevolve
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 performance by 200% over competing implementations
- Prototyped on Jupyter Notebooks, packaged using PyInstaller, and released on PyPI

Three-Body Simulation
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 to decrease average startup time by 90%
- Used Maven build tools and Apache Commons Math and CSV libraries, as well as Bootstrap CSS styling

BiblioBarcode
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

Top 100, Canadian Mathematical Olympiad (Invitational) *March 2021*

Distinction, Top 10%, Canadian Computing Competition (Senior Division) *February 2021*

Gold Division, United States of America Computing Olympiad *March 2020*

Education

University of Waterloo *Waterloo, ON*
Bachelor of Computer Science (Co-op) *September 2021 - Present*
Cumulative Average: 97.4%, Faculty Average: 99.7%, GPA: 4.0/4.0