

# Terry Chen

Student, Web Developer, Problem Solver.

tyxchen@outlook.com / tyxchen.github.io / github.com/tyxchen / linkedin.com/in/tyxchen

## Skills

**Languages** Python, CoffeeScript, TypeScript, JavaScript, Julia, C++, PHP, Java, SCSS, CSS, HTML  
**Technologies** React, OAuth 2.0, Jekyll, Webpack, Gulp, pandas, NumPy/SciPy, d3.js, Apache, MySQL  
**Sysadmin & DevOps** Git, Vagrant, Bash, Zsh, Travis CI, CircleCI, Vim

## Project Experience

**Lead web developer** / Markville Computer Science Education Club June 2017 – June 2018

- Designed, built, and released a Jekyll-based website from scratch that enabled volunteers to easily create, maintain, and manage content with little technical experience.
- Integrated CodeMirror with Remarkable and Asciidoctor.js to build a markup editor featuring live previewing.
- Set up CircleCI to separate asset and content build pipelines and reduce external resource overhead, **increasing client-side performance to the 95<sup>th</sup> percentile of websites worldwide**.

**Web designer and full stack developer** / EverythingDojo.com May 2014 – June 2015

- Worked on initial mockups, user interface, style guide, database, and CMS.
- Modernized back-end APIs in PHP and rebuilt the front-end to be responsive and performant.
- Advised on application security, including vulnerability scanning and penetration testing, overseeing switching to bcrypt for password hashing, and **managing hotfix deployment for zero-day exploits**.

**Scheme list visualization** / Side Project October 2018 – Present

- Used React and Webpack to develop an interactive box-and-pointers visualization, with the goal of helping fellow students understand list syntax in Scheme.
- Developed a Scheme parser in TypeScript to enable visualization of arbitrary source code.

**Calculation Solitaire** / Grade 12 Computer Science Final Project November 2016 – January 2017

- Implemented the Flux application architecture in a limited subset of Java to streamline data flow, avoid platform performance issues, and simplify front-end component design.

## Extra-curricular Experience

**GooseCTF** / Member September 2018 – Present

- Placed 2<sup>nd</sup> overall in the 2018 Pwn2Win CTF (Capture The Flag security challenge).
- Top-20 U.S.–Canada undergraduate finish in the 2018 CSAW CTF Qualifying Round.
- Specialized in website exploitation and digital forensics.

**mathNEWS** / Editor January 2019 – Present

- Acted as point-of-contact for featured professors, involving recruitment and logistical organization.
- Collaborated with the rest of the editorial team in copyediting and publishing issues on a tight schedule.

## Awards

**Term Dean's Honours List** / University of Waterloo Fall 2018

**Math Faculty Entrance Scholarship** / University of Waterloo 2018

## Education

Candidate for **Honours Bachelor of Computer Science** / University of Waterloo 2018 – Present