

HIGHLIGHTS

- Currently enrolled in second year of Electrical and Computer Engineering Co-op program at McMaster University, and looking for 4 to 12-month Co-op job starting in Jan 2023.
- Well-developed collaboration, communication and teamwork abilities established through part-time job experience, extracurricular activities, and classroom projects.
- Highly self-motivated, self-learning, and with full of passion for **Web development, Software Engineering**, designed and deployed 4+ websites for different scenarios from scratch.

SKILLS

- **Programming** : JavaScript, TypeScript, HTML, CSS, JAVA, MATLAB, Git, R
- **Front-End** : ReactJS, NextJS, Bootstrap5, Tailwind, ThreeJS
- **Back-End** : NodeJS, Express, MongoDB, Mongoose
- **Tools** : Github, Postman, Profiler, Stripe, Auth0, OAuth2.0, Cloudinary, Heroku, Netlify, Firebase

EDUCATION

- 🎓 **MS in Electrical and Computer Engineering** || GPA: 3.9/4 Sep, 2021 – Present
McMaster University 📍 Hamilton, ON
Data Structures and Algorithms, Data Science, Information Theory and Coding, Models of Neuron, Sensor Technology
- 🎓 **B.Eng. in Automation** || GPA: 89.6/100 Sep, 2016 – Jun, 2020
Dalian University 📍 Dalian, China
C++ Programming, C Language Programming, Microcomputer Principle and Interface Technology, Principle of Database System, Course Design of Embedded System, Computer Control Technology

PROJECTS

- Video Sharing Website (Fullstack)** Link: <https://tictok-tomaszhu0321.vercel.app/>
 - Published a video sharing-based social networking website based on **TypeScript**, and improved the SEO performance of the page through the **Next.js** framework; attracted more than 10 users and received 95%+ customer satisfaction.
 - Integrated **OAuth** to log in and register users using Google, managed user uploads through **Sanity**, and accomplished clean web style layout via **Tailwind**.
 - Supported users to filter according to video categories, upload their own videos and comment on other users' videos.
- E-Commerce (React)** Link: <https://ecommerce-thomaszhu.netlify.app/>
 - Constructed a fast and user-friendly E-commerce website using **React**, supporting price sorting, fuzzy search, and filtering of all products to meet the 100% individual needs of users and eventually deploy to Netlify.
 - Integrated built-in **Context API** and **useReducer Hook** for state management avoiding the problem of global variables prop-drilling scenarios.
 - Introduced **Auth0** to achieve authentication and authorization to enhance the security of user information; added **Stripe** to manage payments, products, shipping rates, and the entire checkout process.
- Hamilton Rent (Fullstack)** Link: <https://obscure-peak-68037.herokuapp.com>
 - Built front-end view engine using **Embedded JavaScript(EJS)** with **HTML/CSS/JS**; achieved responsive layout through **Bootstrap5**; added **Joi** package for scheme validation, and deployed it to **Heroku(PaaS)**
 - Implemented **RESTful APIs** to handle HTTP requests and responses using **Express.js** and **Node.js**; designed primary database with **MongoDB**; utilized **Cloudinary** to provide image storage.
 - Integrated MapBox's APIs to demonstrate accommodations location on a dynamic cluster map based on geocode.
- Personal Website (JS/HTML/CSS+THREE.JS)** Link: <https://thomaszhuwebsite.netlify.app/>
 - Designed dynamic website using **Three.js**; realized the real-time deformation of the background page through the **dat.gui**.
 - Created responsive personal website portfolio using **JavaScript, HTML** and **CSS** showcasing projects and skills.

WORK EXPERIENCE

- Mathematics Tutor (part-time)** May, 2021 — Aug, 2021
TAL Education Group Remote
 - Strengthened interpersonal and communication skills through 1-on-1 math tutoring for 10+ students and received 98% positive feedback from students.