

Jake Xia

CONTACT

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SKILLS

Languages

- Javascript
- Swift
- C++, C, Java
- SQL
- HTML5, CSS, DOM
- Bash

Tools

- Node.js + Express
- Firebase
- AutoCAD, SolidWorks
- Adobe Design Suite

EDUCATION

University of Waterloo
Candidate for B.ASc,
Mechatronics Eng.
2018 – 2023

INTERESTS

Robotics, 3D Modelling,
Product Design,
iOS Development,
Preventing Climate
Change, Photography

HOBBIES / AWARDS

Awards: Ontario Volunteer Service Award 2018, Young Photographer of the Year Top 5 / 754 contestants

Hobbies: Indoor Farming, Graphic Design, Trudeau Debate Team, Trumpet player in TruJazz

EXPERIENCE

WEB DEVELOPER @ University Health Network, HPC and Bioinformatics Core
Toronto, ON | May 2019 – August 2019

- Lead a design team to create a bespoke front-end web framework for UHN research facilities. Improved information architecture, site navigation, & UX
- Prototyped a firebase web application that improves hospital waiting rooms by giving patients real time updates about their journey in the queue
- Built a user database with Node.js + MySQL as well as a ReST API that sends and receives data using JSON

LEAD DESIGNER / ENGINEER @ Trubotics (VEX Robotics Team)
Pierre Elliott Trudeau High School | March 2016 – June 2018

- Built and programmed 5+ competitive robots iteratively and progressed to VEX Provincials as top 15% of all regional teams
- Automated functions of robot using a system of sensors and encoders, speeding up manual operations and enabling a self-driving mode
- Pitched project to stakeholders, successfully secured club funding of \$5000

MEDIA LEAD @ Asian Liver Centre Stanford University
Peking University, Beijing | June – August 2017

- Collaborated with the Centre for Disease Control in China to devise an effective means of visually conveying the dangers of Hepatitis B
- Created content using various forms of media to convey the dangers of Hep B and fight stigma, viewed by millions of Chinese citizens
- Communicated frequently with team and swiftly incorporated feedback

PROJECTS

PHARMACUETICAL DRUG SEARCH ENGINE | Ongoing

- Web-app for kickstarting the drug development process by predicting the likiness a drug is to succeed, reducing the need for background research

AR FACE TRACKING STICKERS | Ongoing

- iOS app that superimposes stickers onto a face, Snapchat style, using ARKit

3D PRINTED MODULAR WATER BOTTLE | Ongoing

- Prototyped a modular water bottle with interchangeable, screw-on compartments including a filter, ice-core, and tea/fruit infuser

IMAGE PROCESSING + PLOTTER | November 2019

- Developed image processing software to convert coloured images into dithered greyscale photos using Processing graphical library
- Designed and programmed a bi-axial plotter to print the grey-scaled photo (program written in C++)