Yuanjie (Jerry) Zhao

+1 604-782-0419 zhaoyuanjie96@gmail.com github.com/YuanjieZhao
linkedin.com/in/yuanjiezhao yuanjiezhao.github.io

Technical Skills

Languages: Java, JavaScript, HTML/CSS, C/C++, Typescript, Python, Racket

Other: Browser Rendering Engine, Linux, Git, Machine Learning, Agile Development, Functional Programming, Embedded System Programming (Raspberry Pi, MSP430), Photoshop, LaTeX, MATLAB, Physics Modeling

Education

B.Sc., Computer Science and Physics

University of British Columbia

Graduating May 2019

GPA: 3.95/4.33

CS GPA: 4.30/4.33

Scholarships

Faculty of Science International Student Scholarship, 2018

International Major Entrance Scholarship, 2014-present

Chancellor's Scholar Award, 2014

Volunteer Experience

Charity Show at School

As the major organizer in the student team, I was responsible for hiring volunteers, making advertisement, scheduling, and coordination. We sold 500 tickets after two-month preparation and raised ¥13,000 for post-earthquake children. All donation went to the Red Cross.

Raleigh International

Collaborated with a team of European students to build a hygiene system in Malaysian rural areas.

Work Experience

Front-End Developer Intern Summer 2018

Xiaomi Technology, Beijing

- Translated design team's mockups into responsive and interactive interfaces in Xiaomi Game Box App, using HTML, CSS, JavaScript and doT.js.
- Improved the conversion rate of a mobile game by 30% by trying out five different versions of the game's homepage.
- Reduced the rendering time of two ranking pages by 50% by eliminating unnecessary composting layers.
- Rewrote internal documentation system in GitBook and Markdown to reduce training cost for new team members and to encourage more readable documentation.
- Extended Xiaomi analytics engine to support event tracking for YouTube Embedded Players.
- Designed reusable UI components for all front-end teams.

Research Assistant Summers 2016 and 2017

UBC Industrial Automation Laboratory, Vancouver

The research aims to replace traditional static environmental monitoring with dynamic monitoring using low-cost mobile robots.

- Co-Author, "Automated Water Quality Survey and Evaluation Using an IoT Platform with Mobile Sensor Nodes," Sensors, 2017
- Designed a remotely-operated vehicle for environmental monitoring using Raspberry Pi and BlueROV.
- Developed a C program to wirelessly control the vehicle via laptops.

Technical Projects (some projects are accessible on my GitHub)

- In a team of two, constructed a query engine in Node.js that could query university courses and rooms and support RESTful Web service.
- Created a disassembler in C that could reverse engineer machine code into Y86 assembly.
- Wrote a C++ library for processing bitmap, capable of decompressing, rotating, pruning, and saving image.
- Built a GPS tracker based on MSP430 microcontroller.
- Implemented an interpreter in Racket, supporting arithmetic operations, mutation, continuation, named functions, and type checking.

- Implemented a bus route search Android App for Vancouver area, capable of searching the nearest bus stop, routes number and arrival time.