

Yuanjie (Jerry) Zhao

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Technical Skills

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

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

Education

B.Sc., Computer Science and Physics

University of British Columbia

Graduating May 2019

Computer Science GPA: 90%

Overall GPA: 85%

Scholarships

Faculty of Science International Student Scholarship, 2018

International Major Entrance Scholarship, 2014-present

Chancellor's Scholar Award, 2014

Volunteer

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 volunteers 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.

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
- Developed a remotely-operated vehicle for environmental monitoring using Raspberry Pi and BlueROV.

Technical Projects (available on GitHub)

- Built a full-stack local restaurant recommendation website
 - Designed an easy-to-use UI (HTML / CSS / JavaScript)
 - Constructed a web service (Java servlet, REST API) to fetch local restaurant data from Yelp API based on users' GPS locations
 - Developed a content-based recommendation algorithm
 - Used a MySQL server to store users' favorites and history for future recommendation.
- 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.