

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, OOP, REST API, Embedded System, Photoshop, MATLAB, Physics Modeling

Education

B.Sc., Computer Science and Physics, with Distinction

University of British Columbia

Graduated in May 2019

Computer Science Grade: 90%

Overall Grade: 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

Organized a charity show with other students. I was responsible for hiring volunteers, coordination and event promotion. We sold 500 tickets after two months of preparation and donated all raised money to the Red Cross for post-earthquake children.

Raleigh International

Collaborated with a team of volunteers to build modern pit toilets and improve hygiene system in Malaysian rural areas, in order to reduce the risk of infectious disease.

Work Experience

Web Developer, Intern

Summer 2018

Xiaomi Technology, Beijing

- Translated design team's mockups into responsive and interactive UI in Xiaomi Game Box App, using HTML, CSS, JavaScript and doT.js
- Reduced the rendering time of two ranking pages by 30% by eliminating unnecessary compositing layers
- Improved the conversion rate of a mobile game by 10% after trying out five different design of the homepage using A/B testing
- Rewrote internal documentation system in a more readable style using GitBook and Markdown to reduce training cost of new team members
- Extended Xiaomi analytics engine to support event tracking for YouTube Embedded Players

Research Assistant

Summers 2016 and 2017

UBC Industrial Automation Laboratory, Vancouver

- Developed a sensor network for dynamic environmental monitoring using low-cost mobile robots in collaboration with other researchers (this system is deployed in India)
- Wrote a C program on Raspberry Pi that can wirelessly control speed, movement, and data collection of the robots using laptops
- Co-Author "Automated Water Quality Survey and Evaluation Using an IoT Platform with Mobile Sensor Nodes," Sensors, 2017

Technical Projects

Full-stack local restaurant recommendation web app

- Designed an interactive UI (HTML, CSS, JavaScript, AJAX) for users to search nearby restaurants
- Constructed a web service (Java servlet, REST API) to fetch local restaurant data from Yelp API based on users' geolocations
- Used a MySQL server to store real restaurants data, along with users' favorites and search history for future recommendation
- Developed a content-based recommendation algorithm based on users' favorites and search history
- Deployed to Amazon EC2

Query engine for university courses

- Built a query engine in Typescript and Node.js to answer queries about UBC course offerings
- Used ES6 Promise and JSZip to asynchronously parse UBC course data files
- Created a web services providing REST APIs using Restify framework

Bus Finder Android App

- Used OSMDroid API to display a map and plot the user's location
- Constructed the feature to search the nearest bus stop and bus schedule
- Built a web service in Java to retrieve and parse real-time bus arrival information from TransLink Open API

Mini-compiler written in Java

- Implemented parser, type checker, intermediate representation, instruction selection, liveness analysis and register allocation

GPS tracker using C and MSP430 microcontroller