



# ROBERT XU

SOFTWARE DEVELOPER

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 robxu.me

 /robertycxu

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## SKILL SET

### Languages

Java, JavaScript,  
C/C++, Python

### Tech

Node.js, Express,  
MongoDB,  
MySQL, Linux

### Tools

Bash Scripting,  
Git, Vim

### Markup

HTML5, CSS3,  
Markdown

### Design

Premiere Pro,  
Illustrator,  
After Effects

## EXPERIENCE

### Web Developer →

robxu.me | Dec. 2016 - present

- Built personal site featuring UX design, JS animations, using Bootstrap, jQuery, Paper.js

### Embedded Systems Engineer

Waterloop | Sept. 2016 - present

- Worked with Arduino and Java in creating a functional drive train system and user interface for Waterloo's SpaceX Hyperloop team

### Certified Java SE 8 Programmer



Oracle | Aug. 2016

- Received Oracle Java SE 8 certification by demonstrating experience working with Java platforms and technologies

### Web Developer/Designer

Medmodo | Aug. 2015

- Maintained and developed company website using PHP, HTML, CSS
- Designed promotional graphics with Illustrator, increased user base by 200%

### Research Assistant

MIT | May 2015 - Aug. 2015

- Enhanced python-based, pattern recognition program that predicts synthesis of novel materials using data from materials science papers
- Encoded > 100 materials science papers into python dictionaries that formed a directed graph and tested code with Travis CI

### Marketing Director

Science Expo | Aug. 2014 - June 2015

- Built website infrastructure and design
- Led national marketing team, organized annual conference at the Ontario Science Centre
- Deployed monthly newsletter - maintained mailing list of > 1000 subscribers

### Assistant Director of Technology

TEDxRichmondHill | Sept. 2013 - May 2014

- Maintained website infrastructure and database of conference attendees
- Designed animation intro using After Effects

## PROJECTS

### Internet Thoughts | Dec. 2016 →

- Used Node.js, Twitter API to build a sentiment analysis web-engine that returns how positive or negative the internet thinks about a topic
- Fed machine learning algorithm with text corpus data

### Speakr | Hack the Valley →

- Built android app for speech improvement that analyses speech data (speed, filler words, etc.) in real time and presents data graphically using Java, Microsoft Azure API (cognition services)

### EmployHer | BreakInequality@Google →

- Built job listings website that allows users to post listings directly from SMS text using Twilio API, Node.js, Firebase

### Shooter Pong | Aug. 2016 →

- Designed game of Pong on the browser with AI, scaling difficulty, scores using Paper.js for animation and Howler.js for in-game sounds
- Implemented jQuery, Bootstrap, CSS for the frontend, JavaScript for the backend (AI, DOM manipulation)

## AWARDS

- DECA Internationals Qualifier, Entrepreneurship Category | May 2015

- Bronze Medal, Canada Wide Science Fair | May 2014

## EDUCATION

- B.S.E. Software Engineering, University of Waterloo | 2016 - 2021

- Received Retiree's Scholarship, President's Scholarship of Distinction