

# EDWARD REN

edward.ren.2013@gmail.com | [www.github.com/EdwaRen](https://www.github.com/EdwaRen) | [www.edwardren.me](https://www.edwardren.me) | [www.linkedin.com/in/edwardren/](https://www.linkedin.com/in/edwardren/)

## SKILLS

---

**Languages** Python, JavaScript, C++, Swift, C, Visual Basic, HTML/CSS, Java, C#, Bash  
**Tools** Node.js, Django, React.js, Docker, Git, MongoDB, SQL

## EXPERIENCE

---

### Blackberry - QNX

Ottawa, Ontario

Software Engineering Student - Open Source

May 2018 – August 2018

- Spearheaded licensing system **dockerized** with **Django** to increase certification efficiency by **1000%**
- Designed weighted **association rule machine learning** classification to reduce false positives in prediction model by **30%**
- Built data **pipeline** in **Luigi** aggregating **40k** entries to train models in **batch processes**
- Integrated **microservice** architecture using **Kafka** streams achieving **latency** reduction by **95%+**
- Implemented scalable search indexing with **elasticsearch** to display analytics intelligence visualization

### WATonomous

Waterloo, Ontario

Full-Stack Development Lead (watonomous.ca)

October 2017 – August 2018

- Led development of the main WATonomous website with **React.js** with **2000+** monthly visitors.
- Constructed backend server with **Node.js** and **Express.js** to synchronously process file transfers into **MongoDB** on **Ubuntu**
- Initialized deployment and integration of **Django** management system with member signups as a user-friendly admin interface with **SQL**
- Containerized production site in **Docker** with **SSL** and **Nginx** optimization for **300%** speedup

### Ciena Corporation

Ottawa, Ontario

Embedded Software Intern

July 2016 - August 2016

- Exploited **hierarchical tree** structure of data meta-information with **Visual Basic** to automate classification of **75%** of incoming data
- Algorithmically generated URLs with exception detection for **2100+** licenses from **80+ sources**
- Designed section of Ciena's intranet with **Angular** to display weekly reports of data intelligence

## PROJECTS

---

### Recycle Can – Creator and Developer (recyclecan.ca)

June 2017 – December - 2017

- **iOS** and **web** navigation tool that guides users to the closest electronic waste recycling center
- Assembled built-in real-time navigation app using **Swift** with over **18000+** users on **iOS** featuring automatic route plotting from geographical data
- Constructed website supporting mobile features with **React.js** accepting **1500+** peak monthly visits
- Aggregated **11000+ database** entries with data mining from **30+** sources
- Normalized data of up to **75+** megabyte text files for database schema using **Visual Basic**

### Team Goals - Creator and Developer (teamgoals.ml)

July 2017 - August 2017

- Public goal sharing web app to effectively communicate tasks between a team in real time
- Assembled using **React.js** with backend support powered by **Redux** with data persistency on **Firebase**

## HONOURS & AWARDS

---

- Recycle Can project featured nationally by Metro News (2017)
- University of Waterloo President's scholarship of distinction (2017)
- International Baccalaureate Diploma (2017)

## EDUCATION

---

### The University of Waterloo

2017 – April 2022 (Expected)

Candidate for Bachelor in Software Engineering

### Interests

Skiing, Hiking, Speedcubing, Debate, Competitive Programming, Rock Climbing, Trivia