

# EDWARD REN

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## SKILLS

**Languages** Python, JavaScript, C++, Swift, C, Visual Basic, HTML/CSS  
**Technologies** Node.js, Django, React, Docker, Git, TensorFlow, Xcode, MongoDB, SQL

## EXPERIENCE

### Blackberry - QNX

Software Engineering Student - Open Source

Ottawa, Ontario

May 2018 – Aug 2018

- Initiated Dockerized licensing system with **Django** to streamline certifications and cut time spent by 90%
- Designed association rule **machine learning** classifier to reduce false positives in licensing model by 30%
- Pipelined batch database queries in **Luigi** to train models and support aggregation of 40,000+ tasks
- Integrated microservices to existing software stack with **Kafka** data streams to reduce latency by 95%+
- Implemented scalable search indexing with **Elasticsearch** to visualize and deliver analytics intelligence

### WATonomous

Full-Stack Development Lead ([watonomous.ca](https://watonomous.ca))

Waterloo, Ontario

Oct 2017 – Aug 2018

- Created autonomous vehicle team's website in **React** and **Express.js** to serve 2,000+ monthly visitors
- Containerized production site in **Docker** with SSL and **Nginx** to trim page rendering times by 60%
- Developed applicant back-end server with **Node.js** and **MongoDB** to handle text and resume uploads
- Deployed **Django**-based applicant interface with continuous integration to administer 300+ users

### Ciena Corporation

Embedded Software Intern

Ottawa, Ontario

Jul 2016 – Aug 2016

- Rectified licensing inconsistencies using tree traversal algorithms in **Visual Basic** to classify 50% of tasks
- Mass crawled remote repositories in **Python** to obtain URLs for 2,100+ licenses from 80+ sources
- Revitalized department's homepage with **React** and **D3.js** to graphically display weekly data for analysis

## PROJECTS

**HeartBit** - Developer at Hack The North ([github.com/EdwaRen/heartbit](https://github.com/EdwaRen/heartbit))

Sept 2018

- Built biometrics analytics app using image processing in **OpenCV** and **TensorFlow** to monitor anxiety

**Recycle Can** - Creator and Developer ([recyclecan.ca](https://recyclecan.ca))

Jun 2017 – Dec 2017

- Architected real-time iOS navigation app with 18,000+ lifetime downloads using **Swift** to guide users to the closest electronic waste recycling centre
- Constructed companion website in **React** with Google Maps API to deliver 1,500+ peak monthly visits

## ACHIEVEMENTS

**HeartBit** - Canadian Special Forces (CANSOFCOM) winning hack

2018

**Recycle Can** - Featured nationally on [Metro News](https://metronews.ca)

2017

**International Baccalaureate** - Bilingual Diploma

2017

**SHAD Fellow** - University of Saskatchewan

2016

## EDUCATION

University of Waterloo - Bachelor in Software Engineering

Sept 2017 – Apr 2022

## INTERESTS

Cross country, Blitz chess, Speedcubing, Skiing, Swimming, Hiking, Quizbowl trivia