

# Edward Ren

github.com/EdwaRen  
edwardren.me  
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**languages** Python, JavaScript, C++, C, Ruby, SQL, R, HTML/CSS, Visual Basic  
**technologies** Node.js, Ruby on Rails, Pandas, PySpark, MongoDB, scikit-learn, Docker, React

## experience

**TextNow** **Waterloo, Ontario**  
Full Stack Developer Sept 2019 – Dec 2019

- Created internal privacy tool with **Ruby on Rails** to allow admins to place contact blocks between users

**IBM** **Calgary, Alberta**  
Cognitive Software Developer - Advanced Analytics Jan 2019 – Apr 2019

- Designed pipeline to transfer **PySpark** dataframes as partitioned files to S3, leading to 75% faster writes
- Parallelized merging and iterative operations in **Pandas** across 12 cores to speed up computations by 30%
- Delivered **randomForest** and **Adaboost** models to predict product activation rates with 90%+ accuracy
- Applied data preprocessing using **NLP** imputation strategies on 150 million+ dataframe rows

**Blackberry** **Ottawa, Ontario**  
Software Engineering Intern - AI in Open Source May 2018 – Aug 2018

- Developed **Dockerized** package regulatory system with **Django** to cut time spent on certifications by 90%
- Designed **association rule** learning model to reduce false positives in licensing conflict predictions by 30%
- Implemented scalable search indexing with **Elasticsearch** to manage analytics on 21 million commits

**WATonomous** **Waterloo, Ontario**  
Full-Stack Lead - [watonomous.ca](http://watonomous.ca) Oct 2017 – Aug 2018

- Led creation of autonomous vehicle team's website in **React** and **Express.js** to serve 5000+ monthly visitors
- Wrote back-end server with **Node.js** and **MongoDB** to handle text and resume file uploads

**Ciena** **Ottawa, Ontario**  
Open Source Software Intern Jul 2016 – Aug 2016

- Detected 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** - CANSOFCOM Winning App at Hack The North ([github.com/EdwaRen/heartbit](https://github.com/EdwaRen/heartbit)) 2018

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

**Recycle Can** - Creator and Developer ([recyclecan.ca](http://recyclecan.ca)) 2017

- Architected iOS and web navigation app with 18,000+ downloads to guide users to nearby recycling centres

## education

University of Waterloo - Bachelor of Software Engineering Sept 2017 – Apr 2022

- ACT Score of **35/36**, ranked 99th percentile

## interests

skiing, blitz chess, 3D virtual reality art, speedcubing, bouldering, hiking, quizbowl trivia,