Edward Ren

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Languages   Python, JavaScript, C++, Ruby, SQL, HTML/CSS, Visual Basic
Technologies   Node.js, Rails, React, Redux, Pandas, PySpark, Django, Docker, MongoDB

Experience

TextNow   Waterloo, Ontario
Full Stack Developer   Sept 2019 – Dec 2019
- Implemented RESTful API in **Ruby** to support parent-child user relationships in subscription payments
- Rerouted tracking service by batching API calls to **Redis** to boost performance from 10s to under 0.5s
- Created internal privacy tool with **Rails** to allow third party placement of abuse 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
- Delivered randomForest and Adaboost models to predict product activation rates with 60%+ accuracy
- Parallelized merging operations in **Pandas** across 12 cores to speed up computations by 30%
- Applied data preprocessing using **NLP** imputation strategies on 150 million+ dataframe rows

BlackBerry QNX   Ottawa, Ontario
Software Engineering Intern - 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
- Initiated publish-subscribe streaming architecture with **Kafka** to cut pipeline bottleneck by 75%

Ciena   Ottawa, Ontario
Open Source Software Intern   Jul 2016 – Aug 2016
- Detected licensing inconsistencies with directory traversals 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

Select projects

**WATonomous | ** Full-Stack Lead - watonomous.ca   2018
- Led creation of vehicle team's website in **React** and **Express.js** to serve 5000+ monthly visitors

HeartBit | CANSOFCOM Winning App at Hack The North (*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*)   2017
- Developed iOS 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, cross country, speedcubing, bouldering, hiking, quizbowl trivia