Edward Ren

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Languages	Python, SQL, JavaScript, C++, Swift, C, Visual Basic, HTML/CSS
Technologies	Pandas, Docker, MongoDB, Spark, Node.js, Django, Git, React, Keras

Experience

IBM   **Calgary, Alberta**
Cognitive Software Developer - Advanced Analytics   *January 2019 – April 2019*
- Optimized pipeline for uploading partitioned **Spark** dataframes to S3 from 70k to 250k rows/seconds
- Parallelized merging and iterative operations in **Pandas** across 12 cores to speedup computations by 30%
- Applied data preprocessing using **NLP** imputation strategies on 150 million+ dataframe rows

Blackberry   **Ottawa, Ontario**
Software Engineering Student - AI in Open Source   *May 2018 – August 2018*
- Led **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%
- 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   **Waterloo, Ontario**
Full-Stack Development Lead (watonomous.ca)   *October 2017 – August 2018*
- Led 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

Ciena   **Ottawa, Ontario**
Embedded Software Intern   *July 2016 – August 2016*
- Detected licensing inconsistencies using tree traversal algorithms in **Visual Basic,** classifying 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*)   September 2018
- Built biometrics analytics app using image processing in **OpenCV** and **TensorFlow** to monitor anxiety

Recycle Can - Creator and Developer (*recyclecan.ca*)   June 2017 – December 2017
- Architected iOS and web navigation app with 18,000+ downloads to guide users to nearby recycling centres

Achievements

HeartBit - Canadian Special Forces (CANSOFCOM) winning hack	2018
Recycle Can - Interviewed and featured nationally on Metro News	2017
ACT score of 35/36th - 99th percentile	2016
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, Rock climbing, Hiking, Quizbowl trivia