

# XING HAN LU

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## SUMMARY

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*Xing Han was a data science intern at Deloitte. Before joining the firm, he also worked as a software developer intern at Plotly, where he had the opportunity to create Dash Cytoscape, an open-sourced library for interactive network visualization in Python. Before that, he was a research intern at the McGill Clinical and Health Informatics lab, where he used Machine Learning to predict the effect of future taxation policies on the ongoing obesity epidemic. He enjoys sharing projects on Kaggle on his free time. His notebooks has been viewed 80k+ times and forked 3k+ times. His highest rank is Kernels Master (23rd out of 100k+ data scientists).*

## EDUCATION

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### McGill University

Expected Jan 2021

Honours B.Sc. Computer Science

## WORK EXPERIENCE

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### Deloitte

Data Science Intern

Montreal (May - August 2019)

- Build summarization engine using LSTMs and Transformers-based sentence encoder

### Plotly

Software Engineer Intern

Montreal (May - December 2018)

- Developed open-source Deep Learning apps using Tensorflow and scikit-learn

### McGill Clinical and Health Informatics

Machine Learning Intern

Montreal (May - August 2017)

- Improved model accuracy by 38% over baselines with novel Neural Networks architecture using Keras

## TECHNICAL SKILLS

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**Programming** Python, Git, Java, Ocaml, JavaScript, SQL

**Distinctions** Kaggle Master (Top 25 out of 100,000+ in the kernels category)

**Libraries** Numpy, Pandas, Plotly, Scipy, Scikit-Learn, Tensorflow, Keras, Webpack, Selenium, Unittest

**Courses** Artificial Intelligence, Algorithms, Machine Learning, Software Design, Functional Programming

## WORK PROJECTS

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### Dash Cytoscape

[pypi.org/project/dash-cytoscape](https://pypi.org/project/dash-cytoscape)

- Lead end-to-end development of network visualization library using Python and React.js
- Released on PyPi with 4,000+ monthly downloads and used by Microsoft and GitHub
- Closed 40+ pull requests and issues throughout 7 releases using a Kanban project workflow
- Deployed 200+ continuous integration builds using Unit test, Selenium, CircleCI and Percy

### Support Vector Machine (SVM) Explorer

[github.com/plotly/dash-svm](https://github.com/plotly/dash-svm)

- Developed a web app for interpreting ML classifiers using Scikit-Learn in Python
- Attracted 15,000 views on social media, code generated 2,000+ monthly visits on GitHub
- Increased number of user parameters by 3x compared to Stanford's SVM demo

### Image Processing App

Python

- Decreased overhead image storage by 50% and improved scalability using session-based S3 storage
- Combined recursive stacks and Redis caching to increase serving speed by 300% over front-end storage

### Object Detection App

[github.com/plotly/dash-object-detection](https://github.com/plotly/dash-object-detection)

- Built a web app displaying visualizations of object detection metrics in 10 different videos
- Selected to be presented at Plotly's official gallery with 50000+ monthly visits
- Optimized baseline graph to generate real-time bounding box data using MobileNet in Tensorflow

**Guiding public health policy by using grocery transaction data to predict demand for unhealthy beverages**

AAAI 2019 Workshops

*Xing Han Lu, Hiroshi Mamiya, Joseph Vybihal, Yu Ma, David L Buckeridge*

**Using digital purchasing data to generate public health evidence:**

**Learning unhealthy beverage demand from grocery transaction data**

AAAI 2018 Workshops

*Hiroshi Mamiya, Xing Han Lu, Yu Ma, David L. Buckeridge (Peer-reviewed: [16399](#))*