

# XING HAN LU

CS STUDENT, ML RESEARCHER, SWE INTERN

[xing.han.lu@mail.mcgill.ca](mailto:xing.han.lu@mail.mcgill.ca)

[xinghanlu.com](http://xinghanlu.com)

[LinkedIn.com/in/xing-han-lu](https://www.linkedin.com/in/xing-han-lu)

## ABOUT ME

---

**Certifications** Deep Learning Specialization (Verify [BNZ8BTQDGYVA](#))

**Courses** Artificial Intelligence, Honours Algorithms, Data Structures, Probability Theory, Software Design

**Frameworks** Dash, Flask, Numpy, Pandas, Plotly, Sci-kit Learn, Tensorflow, Keras

**Programming** C, Java, JavaScript,  $\LaTeX$ , PostgreSQL, NoSQL, Python, React.js, HTML5/CSS3

## EDUCATION

---

### McGill University

Montreal, QC (2017 - 2020)

Honours B.Sc. Computer Science - Data Science Focus, Internship Program

### Marianopolis College

Westmount, QC (2015-2017)

DEC, Pure and Applied Science

## WORK EXPERIENCE

---

### Plotly

Software Engineer Intern

Montreal, QC (Summer 2018)

- Developed open-sourced Deep Learning apps using Tensorflow and scikit-learn
- Presented Dash and Plotly at Data Science Symposia and Webinars with over 200 attendants
- Lead the migration of 20 apps from Heroku to proprietary cloud platform as part of the PaaS initiative

### McGill Clinical and Health Informatics

ML Research Intern

Montreal, QC (Summer 2017)

- Co-authored a ML paper presented at AAAI Workshop, significant contribution to development
- Manipulated big data (datasets with millions of records) daily using Data Mining libraries (Pandas and SQL)

## PROJECTS

---

### Support Vector Machine (SVM) Explorer

Made at Plotly

- First app to wrap Scikit-Learn using Dash (back-end Flask and front-end React.js)
- Increased number of UI-tunable parameters from 3 to 9, compared to Stanford's SVM demo
- Attracted 15,000 views across 5 platforms, and code generates over 2,000 monthly visits on GitHub

### Image Processing App

Made at Plotly

- Used session-based S3 storage to decrease overhead storage usage by 50% and improve scalability
- Combined recursive stacks and Redis caching to increase serving speed by 3x over front-end storage

## PUBLICATIONS

---

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

**Learning unhealthy beverage demand from grocery transaction data** New Orleans, LA (Feb 2018)

*2018 AAAI Workshop on Health Intelligence (Peer-reviewed: 16399)*

- AAAI is a conference with below 25% acceptance rate and 1500 annual participants
- 38% model improvement over baseline models using Multi-Layer Perceptrons and Statistical Learning

## ACTIVITIES

---

### Esprit Science

Director

Montreal, QC (Sept 2017 - Present)

- Non-profit organization founded by Schulich Leaders and Undergraduate Researchers
- Presented 3 intro coding workshops for special needs and traditional high schools

### McHacks

Hackathon Organizer

McGill University (Feb 2018)

- Flagship coding event with 600 students from all over North America (MIT, Berkeley, Waterloo, etc.)
- Collaborate with sponsors such as Amazon, Cisco, Deloitte and Google to offer over \$34,000 in prizes.