Xin Lei Lin

Computer Science and Molecular Genetics
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<Linux and Vim user>

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Spoken Languages : English, French, Spanish and Mandarin

AWARDS

- **University of Toronto - C. David Naylor Scholarship** $20 000 and Arts and Science Scholar $7500
- More than $16 000 in **Science Fair Wins** + participation at the **International Science and Engineering Fair**
  - Includes Fair WINNER and other medals (2x), Hydro-Quebec Top Prize, Ministry of Economy, Innovation and Technology prize, IEEE Award Best Project in IT, OCTAS Cegep award, and many more
- **Leadership award** at Collège Jean-de-Brébeuf ($1000 in total awards) for contribution as **five-time elected president** of student council, and **editor-in-chief of 2 newspapers** (40 writers - 160 pages total)
- (deferred) UWaterloo President's Entrance scholarship for **Software Engineering** ($2000)

EXPERIENCE (click on **Project Titles** > to learn more!)

Visiting Research Intern @Université de Montréal w/ Prof. Sahraoui   *Summer 2023 –*

- Continuation of the research project <u>Artificial Sign Language.</u>

Artificial Sign Language > ($15 000 in cumulated awards)   *November 2022 to May 2023 –*
(Regeneron International Science and Engineering Fair – Dallas, Texas)

- American Sign Language to English Translation w/ **Deep learning - Dense Neural Networks, CNNs**, transfer learning with **YOLO, ResNet, and RNNs with Tensorflow.**
- Data analysis and webscraping in **C++ and Python.** Computer Vision with **OpenCV** and **MediaPipe**.
  [**Access our GitHub Repository >**](#)

Website Developer @Haute Tech Orientale [hautetechorientale.com >](#)   *Summer 2022 –*
- Website Development (from scratch), w/ JS, HTML and CSS

Competitive Programming Tutor and Vice-President at BrébeufHx and MariHacks >
- Taught C++ and Python for DS & A to 20 students + Organized 3 hackathons, more than 400 participants.

PROJECTS (click on **Project Titles** > to learn more!)

Spiking Neural Networks – Software Team - UTMIST   *October 2023 to Present –*
- Design and deploy neuromorphic algorithms and learning models through **SnnTorch**. Manipulation of video data with **OpenCV** to encode the difference between each frame to generate spikes.

Hack The North 2023 - DriveSense (Winner Project) >   *September 2023 –*
- Fine-tuning **YOLOv5** and **YOLOv8** with **PyTorch** for car plate detection, traffic light colors and road signs.
- Car speed detection w/ GPS data on mobile app (**React**). Secondary frontend with **Streamlit**.
  [**Access our GitHub Repository >**](#)

Classif.ai >   *June 2023 –*
- **Hugging face LLMs** to summarize large transcripts of voice recordings, school notes and live recordings into Flash Cards. Front-end and flash cards interface w/ **React**.   [**Access our GitHub Repository >**](#)

XCHANGE > (ConUHacks VII)   *January 2023 –*
- Animating banking data through **React, HTML, and CSS**. Data analysis through **C++.** Usage of **density estimation** (unsupervised learning) for **anomaly detection** in banking database.

AIBERT > (Super Expo-sciences) (more than $1000 dollars in awards)   *September 2021 to May 2022 –*
- **LSTM, Naïve Bayes Classifier** and **BERT** to detect spam messages and calls. Mobile development with **Flutter**. **Flask** backend on Repl.it.