

# David Li

✉ [d84li@uwaterloo.ca](mailto:d84li@uwaterloo.ca) | [github.com/DavidY-Li](https://github.com/DavidY-Li) | [in davidy-li](https://www.linkedin.com/in/davidy-li)

## WORK EXPERIENCE

---

### Sunnybrook Research Institute

Toronto, Ontario

*Machine Learning Research Intern*

*May, 2024 – August, 2024*

- Improved predictive accuracy of daily trauma prediction by **25.4%** through developing and fine-tuning machine learning models using **PyTorch** and **scikit-learn**
- Used **Pandas**, **seaborn**, and **matplotlib** to perform exploratory data analysis, feature engineer, and aggregate a dataset of over **50,000 surgical cases** to guide surgical scheduling decisions

### Ingenuity Labs

Kingston, Ontario

*Software Engineer*

*August, 2024 – Present*

- Designed and implemented a multi-platform posture monitoring system using wearable sensors, utilized for **75+ hours** in operating rooms, flagging **260+** instances of poor posture
- Developed an iOS app with **React Native** and **Swift** frontend, and **FastAPI** and **MongoDB** backend, integrating an **Arduino Nano** control board for real-time posture feedback with LED indicators and haptic sensors

### Riftium

Kingston, Ontario

*Software Engineer*

*June, 2022 – September, 2023*

- Built several websites ranging from a chocolate e-commerce store to a law firm, using **TypeScript** and **React**, deployed to a custom **Kubernetes** cluster, Shopify headless API, and **Next.js** hosted on **Vercel**
- Co-founded Riftium, a web development firm, generating over **8.5K in revenue** by designing and implementing full-stack websites for companies

## PROJECTS

---

### Trajectify | Python, PyTorch, TypeScript, React, Next.js

- Developed and fine-tuned **Llama-7B** on LinkedIn profile data from Canadian institutions to generate personalized career paths and actionable next steps
- Won **Second Place** @ JAMhacks7 out of 137 participants

### Moonlit | Python, PyTorch, TypeScript, React, Next.js

- Utilized **GPT-NeoX-20B** and a fine-tuned **BigBird** on AllSides data to analyze and identify bias and emotional content in news articles
- Won **Third Place** @ Hack The Change out of 376 participants

### reBlock | Python, PyTorch, TypeScript, React, Next.js

- Trained and fine-tuned **RoBERTa-base** on over **31,000 YouTube** videos to detect and skip sponsored segments in real time based on video transcripts, achieving **97.5%** token level accuracy
- Won **First Place** @ Hack3 out of 374 participants

### BetterBlackjack | Python, Raspberry Pi, NumPy, OpenCV, Pillow

- Created an automated Blackjack dealer that distributes cards, regulates player actions, and calculates outcomes using a **Raspberry Pi** and **custom computer vision algorithm**

## SKILLS

---

**Languages:** Python, C/C++, Java, C#, TypeScript, Swift, HTML/CSS, SQL

**Technologies & Tools:** PyTorch, scikit-learn, React, React Native, Next.js, FastAPI, MongoDB, Git, Figma

## EDUCATION

---

### University of Waterloo

Waterloo, Ontario

*Bachelor of Software Engineering*

*September 2023 – April 2028*