

# TERRY LUAN

---

Toronto, M5G 1S9 • [terryluan12@gmail.com](mailto:terryluan12@gmail.com) • (705) 500-5960  
[www.linkedin.com/in/terryluan12](http://www.linkedin.com/in/terryluan12) | [www.terryluan.com](http://www.terryluan.com) | [www.github.com/terryluan12](http://www.github.com/terryluan12)

## EDUCATION

### University of Toronto

B.Asc, Electrical & Computer Engineering

*Minors in Artificial Engineering and BioEngineering*

*Relevant Courses: Algorithms & Data Structures, Introduction to Machine Learning, Applied Fundamentals of Deep Learning*

Toronto, ON

Exp. Grad. Date: Jun 2024

## SKILLS

**Languages:** Python (5 years), C++ (5 years), Rust (3 years), MATLAB (3 years), SQL (2 years)

**Frameworks:** React/Redux (4 years), Numpy/Pandas (3 years), Express (3 years), Flask (3 years), Django (3 years), PyTorch (2 years), NodeJS (2 years)

**Industrial:** Agile Project Management (Jira), Scrum

## LEADERSHIP AND WORK EXPERIENCE

### Software Developer Intern

*Univeris*

Toronto, ON

Aug 2022 – Aug 2023

- Migrated 23+ maven projects from **JBOSS SEAM** Framework and Java 8/Java EE to **Java Server Faces, Java 17/Jakarta EE and Spring 3**
- Created & maintained a Software Bill of Materials for updated projects
- Tested with **Junit, Mockito, and POSTMAN** to verify and validate changes
- Held role of Security Champion within Platform Maintenance Team, upholding code quality standards
- Addressed **Vue 2** and **Java 8** issues across various Agile/Scrum projects

### Logistics and Volunteers Director

*Physical Security Village*

Toronto, ON

Jul 2022 – Present

- Assembled and supervised teams of 50+ volunteers for **RSA, DEF CON, CypherCon, and Ekoparty Cybersecurity Conferences**
- Established and maintained conference participation for the RSA, DEF CON, and Ekoparty events, attracting 300 – 10,000 participants in village

### Independent Research Project

*University of Toronto – Dr. Kevin Truong*

Toronto, ON

Sep 2023 – Present

- Explored usage of **BERT model DNABert** in coding sequences in DNA
- Used **Bert-Viz, Seaborn, and Matplotlib** to visualize attention heads created from DNABert

### Web Developer/Systems Admin

*Canadian Musicians Co-op*

Barrie, ON

Jul 2021 – Sep 2021

- Collaborated with a cross-functional team comprising UI designers, stakeholders, and copywriters to overhaul the website ([www.canadianmusicians.coop](http://www.canadianmusicians.coop)), refining it over three iterations using EditorX
- Employed HTML/CSS/JS to create custom newsletter, calendar, and sign-up widgets to enhance website functionality.
- Seamlessly integrated the Shopify API, enabling customers to place orders for food products through the website.

## PERSONAL PROJECTS

### Gyne Nerve Monitoring

Toronto, ON

*University of Toronto – Biomedical Capstone*

Sep 2023 – Present

- Designed nerve monitoring system for use in Pelvic Nerve Preserving Surgeries including electrodes, mechanical assemblies, stimulation method, and processing unit
- Prototyped foil-hydrogel electrodes to detect presence of deep autonomous nerves to avoid stimulation
- Performed **literature review** and competitor analysis to investigate state of current nerve monitoring systems
- Utilized **MATLAB** to design tests for verification and validation of user needs and determine **system SNR**

### Genrify

Toronto, ON

*University of Toronto*

Jun 2023 – Sep 2023

- Created ensemble **Machine Learning model** to identify genres of music within sound clips with 81% accuracy rate
- Utilized CNN models to classify different representations (**Spectrogram, Mel Spectrogram, Chroma, and MFCC**) of audio clips and employed majority voting to determine final prediction

### A Star Chooser

Toronto, ON

*University of Toronto*

Sep 2021 – Current

- Led developer team to deploy Course Selection Software using **Python (Flask)** and **HTML/CS/JS** on **Heroku**, obtaining **Top 3 position** out of 16 similar projects
- Created Components created using Figma and imported through **ReactJS** to construct website
- Designed web-scrawling function using **BeautifulSoup** to populate **MongoDB** database

### Mini C Compiler

Toronto, ON

*University of Toronto*

Sep 2021 – Current

- Designed a compiler in C++ designed to take a set of instructions in a subset of C, parse and compile it to an executable program
- Used the LLVM and ANTLR libraries to perform multiple small optimizations including register allocation, loop unrolling, dead code elimination, and constant folding

## EXTRACURRICULARS

### Marketing/Logistics Director

Toronto, ON

*IEEE – University of Toronto*

Jan 2020 – Present

- Developed Marketing and Logistics strategy and event timeline for IEEE events held at University of Toronto throughout calendar year
- Organized catering, room logistics, and volunteer/judging logistics for 4 different workshops and various events, including NewHacks, MakeUofT, and AWSHacks
- Led team of 10+ members develop and execute UI designs using **Figma**

### ML Engineer

Toronto, ON

*Engineers Without Borders*

Jan 2021 – Dec 2021

- Devised pre-processing algorithms using **Python, Jieba**, and **SnowNLP** to crawl Github to separate Chinese, English, and unknown texts
- Created **Artificial Neural Network** using **Spacy** and **Pytorch** to classify Chinese texts into political and apolitical texts with 93% accuracy rate