

# Shuolin (Leo) Yin

+1 (647) 674-6127 | leo.yin@mail.utoronto.ca

<https://github.com/leoyin1127> | <https://www.linkedin.com/in/shuolinyin/>

## EDUCATION

### University of Toronto

Toronto, ON

*Bachelor of Applied Science and Engineering in Computer Engineering + PEY Co-op*

*Sep 2023 – Apr 2027*

- Recipient of Faculty Of Applied Science And Engineering Admission Scholarship
- Recipient of Edward S. Rogers Sr. Admission Scholarship

## WORK EXPERIENCE

### The Institute of Automation, Chinese Academy of Sciences (CASIA)

Beijing, China

*Research Assistant under Prof. Yang Yang, Prof. Jinlin Wu and Sr. PD Zhen Chen*

*Feb 2024 - Sep 2024*

- Streamlined research on **Medical multimodal large language models (MLLMs)** through systematic literature review and novel experimental design, developing methodology for **MICCAI 2025 submission**
- Engineered an **end-to-end data pipeline** for medical imaging benchmark creation using **Python**, incorporating automated quality checks and custom annotation tools, resulting in **75%** reduction in processing time and **40%** improvement in annotation accuracy
- Implemented and evaluated **SOTA MLLM architectures** using **PyTorch**, focusing on cross-modal attention mechanisms and medical knowledge integration for enhanced diagnosis reliability
- Spearheaded **weekly technical discussions** and authored comprehensive **research documentation**, facilitating knowledge transfer across interdisciplinary teams of **medical experts** and **ML researchers**

### VolunTrack Org.

Toronto, ON

*President/Founder*

*Jun 2022 - Sep 2024*

- Founded and scaled a **non-profit organization** through a structured **four-tier management system**, growing the company to **50+ members** and establishing partnerships with **100+ global non-profits**.
- Architected and developed a **full-stack volunteer management platform** using **React Native** and **React.js** for web/mobile applications via **CI/CD pipeline**, achieving **1000+ monthly active users**.
- Designed a **scalable database architecture** using **Firestore Realtime Database** and **Cloud Firestore**, integrating with **GCP services** for efficient data management across **100+ organization profiles**.
- Established **tech mentorship program**, connecting students with real-world projects, resulting in **30+ successful project completions** and **10+ conference speaking engagements**.

## PROJECT EXPERIENCE

### ReassurED - AI-Powered Emergency Care Guidance/Navigator

Montreal, QC

*Project Lead*

*Sep 2024*

- Led a team through a **24-hour hackathon**, developed a cross-platform emergency healthcare app using **React Native (Expo)** and integrated real-time hospital data via **Firestore**.
- Implemented dynamic triage and hospital recommendations using **Few-shot Learning** with **DeepSeek V3**.
- Built scalable backend with **FastAPI** for real-time hospital info, leveraging web scraping and auto data updates.
- Enhanced user experience with location-based hospital maps using **react-native-maps** and **expo-location**.

### YiXing - AI-Driven Personalized Travel Planner

Toronto, ON

*Project Lead / Co-Founder*

*Jun 2023 - May 2024*

- Led an **agile development team** of six in building an AI-powered travel planning platform, integrating **Fine-tuned LLMs** with **React Native** to generate personalized itineraries.
- Designed and implemented a **Retrieval-Augmented Generation (RAG)** system using **LangChain** and **vector databases**, optimizing travel recommendations based on historical user data.
- Built a **scalable backend architecture** with **AWS Lambda** and **Node.js**, employing **RESTful APIs** and **microservices** for high-efficiency data processing.

### IEEE UofT

Toronto, ON

*Web Team Associate*

*Jun 2024 - Present*

- Developed and maintained **full-stack web applications** with a **React.js frontend** and **Django backend**, enhancing IEEE UofT's main website and event platforms with a **responsive, user-friendly design**.
- Improved performance by **optimizing APIs and caching**, reducing load times and enhancing **user experience**.
- Collaborated within an **agile team** to build and deploy new features and ensure a **seamless experience**.

## SKILLS

Programming Languages: Python, JavaScript, C/C++, C#, HTML, Swift, MATLAB

Frameworks & Libraries: React Native, React.js, Node.js, Django, LangChain, OpenCV, YOLO, PyTorch

Cloud & DevOps: AWS (Lambda), Google Cloud Platform, Firebase, Git, CI/CD

Development Tools: VS Code, Xcode, Unity, Fusion 360, Blender, AutoCAD