

Shuhao (Alan) Fan

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EDUCATION

Bachelor of Applied Science with Co-op: Major in Computer Engineering, Minor in Artificial Intelligence

Expected in Jun 2026

UNIVERSITY OF TORONTO

Toronto, Canada

- **cGPA:** 3.13/4.00
- **Academic Accolades:** Dean's Honours List Recipient (2023)
- **Notable Coursework:** Circuit Analysis (A-); Advanced Engineering Mathematics (A); Applied Fundamentals of Deep Learning (A-); Operating Systems (A-); Algorithms & Data Structures (A-); Computer Networks (A); Introduction to Artificial Intelligence (A-)

PROFESSIONAL EXPERIENCE

SOFTWARE QA DEVELOPMENT INTERN

Sep 2024 - Present

SOTI

Mississauga, Canada

- Designed and executed manual and automated test cases for major XSight features, including multi-party support sessions, dynamic action menus, and participant role systems
- Conducted stress and exploratory testing using JMeter and regression testing on frontend and backend components to ensure product stability and performance under scale
- Collaborated with developers, UX designers, and product managers in sprint cycles to identify and resolve critical bugs, improving release quality and on-time delivery
- Contributed to the testing and optimization of WebRTC-based communication features, reducing backend query latency by 15% to support over 1M real-time users

DATA ANALYST, WORKPLACE EDUCATION PROGRAM

Jul 2025 - Aug 2025

FIBOS INC.

Toronto, Canada

- Conducted industry research and data analysis on combustion monitoring technologies, producing improvement proposals supported by visualizations using Power BI
- Delivered literature reviews and summary presentations on emerging trends in environmental sustainability and combustion monitoring innovations
- Assessed potential industry applications and developed business cases—including cost-benefit and ROI evaluations—for adopting AI-powered combustion monitoring solutions

SOFTWARE DEVELOPER INTERN

Jun 2023 - Aug 2023

ST. GEORGE QUANT LAB

Toronto, Canada

- Built a full-stack trading strategy analysis platform using Flask, Pandas, and React, enabling real-time evaluation of user-defined strategies
- Developed backend APIs to process and filter over 8 million CRSP entries, improving data handling efficiency for quantitative analysis
- Integrated TradingView and other external APIs for real-time market visualization; optimized dashboard performance with server-side rendering via Next.js
- Designed and implemented a responsive user interface to support seamless interaction and customized strategy testing across devices

SOFTWARE DEVELOPER INTERN

Jun 2022 - Aug 2022

LONGYOU NETWORK CO., LTD.

Shanghai, China

- Implemented dynamic hot update functionality in a Unity-based mobile game using C# and Lua scripting, enabling seamless content deployment without full app releases
- Maintained and enhanced the company's official game website using React, optimizing UI components for responsiveness across desktop and mobile platforms
- Collaborated with both game and web development teams to ensure consistent user experience and streamlined content delivery across platforms

PROJECT HIGHLIGHTS

BIRAD CLASSIFICATION | PYTHON; PYTORCH; [Github](#)

Sep 2023 - Dec 2023

- Spearheaded in deep learning project on BIRAD mammogram classification, overseeing the end-to-end workflow from data preprocessing to model evaluation
- Built and fine-tuned a stacked neural network architecture, applying hyper-parameter optimization and regularization techniques to improve model robustness
- Achieved 75% classification accuracy through extensive data augmentation and implemented a responsive Python script for real-time BIRAD class prediction

GIS MAPPER | C++; LIBCURL; SQL; GIT; [Github](#)

Jan 2023 - May 2023

- Developed full-stack GIS mapping application with a user-friendly interface, tailored for driver navigation and usability
- Implemented backend SQL queries to retrieve and display real-time traffic and road mark data, while integrating live weather updates using LibCurl and external APIs
- Optimized rendering performance for large-scale maps, boosting frame rates from 70 FPS to 120 FPS for a smoother user experience

SKILLS

- **Programming Languages:** Python; C/C++; C#; Java; JavaScript; HTML; CSS; SQL; TypeScript
- **Frameworks:** Angular; Node.js; .Net Core
- **Libraries:** PyTorch; Pandas; NumPy; Matplotlib; SFML; PyGame; EZGL
- **Languages:** Fluent in English & Mandarin