Shuhao Fan

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EDUCATION

University of Toronto   Toronto, ON
Bachelor of Applied Science in Computer Engineering, Minor in AI engineering   *Aug. 2021 – May.2026*

Relevant Coursework: Algorithms and Data Structure, Operating Systems, Software Engineering, Applied Deep Learning, Computer Organization, Machine Learning, Computer Networks, Database

EXPERIENCE

Software Developer Intern   June 2022 – August 2022
Longyou network co., LTD   *Shanghai, CN*
- Conducted dynamic hot updates using **C#** and **Lua** scripting with the Unity engine.
- Maintain and update the game's official website with React, implemented responsive design.

Software Developer Intern   June 2023 – August 2023
St.George Quant Lab   *Toronto, ON*
- Developed an application analyzing user-custom trading stategy based on historical market data.
- Utilized **Flask** & **Pandas** to construct a robust API for filtering and fundamental calculations of 8M+ CRSP entries.
- Employed server-side rendering with Next.js to optimize loading time for dashboards from TradingView API.
- Implemented a responsive **React** UI which provides analysis based on input.

QA Intern   Sep 2024 – May 2025
SOTI   *Toronto, ON*
- Write Unit tests for angular UI testing with average coverage of 90%.
- Used **Selenium** to test production-code back-end web API calls to reduce the count of bugs reported by customers by **5%** over months.
- Generated representative data in the database and executed targeted queries to replicate real-time issues reported by customers enabling rapid identification and resolution.

PROJECTS

GIS Mapper | **C++, team of 3, LibCurl, SQL, Git, [GitHub](#)**   Jan 2023 – May 2023
- Collaborated on a **full stack C++** Geographical Information System mapper featuring an intuitively crafted user interface, optimizing usability and efficiency for drivers.
- Engineered SQL queries that display road marks item and traffic data in the backend.
- Integrated the **libcurl** library into the codebase to facilitate real-time weather data retrieval through API calls, seamlessly integrating this information into the GIS mapper for dynamic and up-to-date weather visualization together with real-time traffic informaiton.
- Optimized the rendering of the program from 70 frames per second to 120 frames per second on large scale maps.

BIRAD classification | **Python, Pytorch, [GitHub](#)**   Sep 2023 – Dec 2022
- Leading a **deep learning** project on BIRAD mammogram classification.
- Implemented stacked neuron network model for feature extraction and hyper-parameter tuning to achieve optimal learning model and testing error.
- Implemented Data regularization, augmentation and different data pre-processing techniques to achieve a more robust model and managed to achieve a **75%** accuracy on biomedical image classification.
- Developed a Python script that predicts BIRAD classes with the trained model with great responsiveness.

SKILLS

Languages: Python, C/C++, Java, SQL, JavaScript, HTML/CSS, C Sharp, Verilog, SystemVerilog
Frameworks: Node.js, .Net Core
Develop Tools: Git, VS Code, Bash, ModelSim, Conda, JupyterNotebook, Quartus, Unity, Xcode
Libraries: Pytorch, pandas, NumPy, Matplotlib, SFML, pyGame, EZGL