

# Ningyuan Gao

## Software Engineer

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### Profile Summary

- Software Engineer experienced in building and deploying full stack solutions. Well versed in Object-Oriented Programming (OOP), Data Structures & Algorithms and Machine Learning technologies.
- Full-stack developer with a strong command of programming languages including Java, C/C++, Rust. Proficient in designing UIs with React.js, writing server-side code and building APIs with Java, and manipulating SQL & NoSQL databases. Solid understanding of Authentication, Security, and version control.

### Education

**University of Waterloo** 

**B.Sc. in Nanotechnology Engineering**

Waterloo, ON, 2015 - 2021 **GPA: 3.7/4.0**

**Languages** **English:** Fluent **Chinese:** Native level

**Japanese:** Fluent

### Technical skills

**Languages:** Java, C/C++ (with OpenCV), Rust, JavaScript (with React) / HTML, CSS

**Mobile:** SwiftUI, UIKit, Objective-C, Swift

**Dev Tools:** Git, Postman, OpenGL, CUDA, Xamarin

### Professional Experience

**Cyphercor Incorporate**  **Software Development Engineer**

**Ottawa, Canada** May. 2021 - Present

- Contributed to the software development lifecycle by designing and implementing back-end features for a Cyber Security software, delivering clean and scalable code with Java/Javax and JavaScript.
- Worked and collaborated within a pluridisciplinary team including Back-End Engineers and iOS Development. Gather technical requirements by extracting architectural significance and solution designs.
- Refactored the log service with annotation-based code injection to automate the logging process, and improve atomicity and maintainability of the code base.
- Participated in UI design by writing dynamic front-end components with React.js, for an improved user experience.
- Contributed to mobile application technical design, by offering Swift and Objective-C expertise to the Mobile team.
- Delivered technical presentations to the team on new designs, features and development plans.

**Audioworks Incorporate**  **Web Application Developer (Intern)**

**Toronto, Canada** Apr. 2020 - Aug. 2020

- Participated in the technical effort by architecting a music training mobile application using the Xamarin framework.
- Developed an inter-communication layer to inject C++ libraries into iOS native modules.
- Wrote and maintained clean code, comments and documentation to ensure optimal legibility and productivity, and contributed to cloud server setup and maintenance.

**Viziya Corporation**  **Software Developer (Intern)**

**Hamilton, Canada** Jan. 2020 - Apr. 2020

- Collaborated during the development of a mobile application for industrial machine failure reporting, leveraging the Xamarin framework.
- Perform bug-fixing and testing troubleshooting. Proactively sought performance improvement opportunities with a well defined profiling approach to isolate and clear bottlenecks, improving quality, speed and stability.

**Taituo Biotechnology** **Software Developer & Lab Assistant**

**Kunming, China** Jan. 2018 - Dec. 2018

- Redesign a commercial website's user interface, by crafting an engaging user experience with Angular as a front-end framework, allowing for dynamic rendering of modern UI components.
- Built a visualization tool with Python to display experiment results and generate standardized lab reports. Assisted optimizing the production recipe of Notoginseng Triterpenes in lab works.

**Sunelectric Incorporated**  **Software Engineer (Intern)**

**Singapore, Singapore** Sep. 2017 - Dec. 2017

- Implemented the back-end of an automatic billing system, using Java and Spring.
- Delivered a web portal with a RESTful API to remotely control electricity panels, using Angular to build the UI.

**D+H Corporation**  **Software Engineer (intern)**

**Mississauga, Canada** Jan. 2017 - Apr. 2017

- Built a web UI toolkit using Angular2 for the company's internal web applications. Refactored the Web Experience Toolkit developed under the government web standards with Material design.
- Used Microsoft Azure platform and Tensorflow to explore the possibility of developing a machine learning tool to partially automate the loan landing process based on limited information.

### Projects Experience

**PetInsight** 

Sep. 2020 - Apr. 2021

- Developed a web application from scratch using Spring, to stream videos. Created a video pipeline with C++ to integrate video analysis modules developed with different languages. Integrated machine learning algorithms including Yolo and R-CNN to determine cat's condition from videos.