

# Nanxi(Nancy) Xu

SOFTWARE ENGINEER

## Details

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## Links

[Linkedin](#)  
[Personal Page](#)  
[Github](#)

## Skills

JavaScript  
Git  
HTML & CSS  
MySQL  
C++  
Java  
AWS  
MongoDB  
Dart  
Flutter  
Machine Learning  
Leadership  
Hand-on, Fast  
Communication  
Collaborate  
Design, Creative

## Languages

English  
  
Chinese

## Hobbies

Snowboarding, swimming,  
badminton, hiking

## Education

**Master of Computer Science Computer Science (Online), Frostburg State University, Frostburg**

JUNE 2020 – MAY 2023

**Bachelor's of Science Biochemistry, Frostburg State University, Frostburg**

SEPTEMBER 2014 – MAY 2018

## Employment History

**Laboratory Assistant Manager, BioChain Institute Inc., Newark**

JANUARY 2022 – PRESENT

Ensure product quality; ensure on-time delivery; create and update standard operating procedure; follow production line personnel and corresponding products; understand the shipping, receiving, and packing process; train, ISO training, safety training, and regulation training for each employee; monitor equipment maintenance.

## Projects

**Full Stack Website with APIs and Usability**

Created a website by using the AWS platform and services. AWS EC2 instance was used to host the website. The website was developed using the Stack/framework. Usability considerations were built into the website. MongoDB was also used to develop a schema on data stored in MongoDB and Elastic Search.

**Pet Foodie**

<https://nancyxu94.github.io/PetFoodie/index.html>

HTML, CSS, and JavaScript were used to build a website for a pet food. JavaScript is the programming language, we use HTML to structure the site, and we use CSS to design and layout the web page.

**Sushi Application - Flutter**

Developed a personal project by using Flutter and Dart, combining my passion for culinary arts with mobile app development. Created an immersive and visually appealing interface, allowing users to explore, customize, and track their sushi orders in real time.

**Coffee Shop Application - Flutter**

Conceptualized and developed a dynamic mobile application for coffee enthusiasts, using Flutter and Dart. Designed to enhance the coffee shop experience, the app features an intuitive interface for exploring the menu, placing orders, and engaging with a community of fellow coffee lovers.

**GO-Back-N**

Implemented error control protocols by using Stop-And-Wait and Go-Back-N mechanisms. Used segment as an underlying unreliable channel to put protocol data unit in the payload of the UDP segment. Maximum payload size, header size, number of fields, order and size of the different fields, different possible code values for certain fields, and message sequencing. The program is able to communicate with each other based on SAW to SAW and GBN to GBN.

**Online Chess Game**

Followed all the standard chess rules(castling, pawn promotion, check). Implemented the programs for the chess server and the chess client, which communicated directly using TCP socket.

## **Battleship Game**

MVC Design pattern implementation in the API and Observer Pattern implementation as well as in the Game itself. Though the battleship game code has aspects of MVC, the addition of events and listeners made the design use more of the Observer pattern as the Board was listening for the different events and acting as a controller to switch the different pages. Working with Spring Boot Framework technology, especially with integrating with Swagger UI to provide an easy way to document and experiment with our custom API.