

# Michael Xia

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## EDUCATION

### Binghamton University

Bachelor of Science in Computer Science

May 2023

## TECHNICAL SKILLS

**Languages:** Python, Java, JavaScript, C++

**Frameworks:** FastAPI, Spring Boot, Express, NextJS

**Libraries:** React, Pandas, SQLAlchemy, Hibernate

**Databases:** PostgreSQL, MySQL, Redis, MongoDB

**CI/CD:** Aws CloudFormation, Azure Pipeline, GitHub Action

## PROFESSIONAL EXPERIENCE

### Software Engineer Intern | Symetra

Bellevue, WA

Python, FastAPI, PostgreSQL, Docker, Aws ECS, Azure DevOps Services

May 2023 - Aug 2023

- Contributed to the development and optimization of RESTful APIs for a microservice.
- Designed unit tests and integration tests with more than 90% code coverage.
- Refactored and modularized parts of the existing code base, reduced test files by 1/5 while maintaining code coverage.
- Developed CI/CD pipelines to facilitate automated testing in diverse environments, utilizing CloudFormation for resource setup on AWS.
- Configured deployments on AWS ECS, ensuring seamless integration with CI/CD workflows for efficient application delivery.
- Created API documentation and specifications.

### Software Engineer Intern | NASA New York Space Grant

Owego, NY

C++, JavaScript, Express, MySQL, Arduino Uno

Jun 2022 - Aug 2022

- Collaborated with Lockheed Martin engineers on the development of a water filtration system.
- Implemented features for detecting collisions and water leaks within the system.
- Developed a RESTful API that transfers data collected by Arduino Uno to a MySQL database.

## PROJECTS

### My Portfolio

<https://michaelx-portfolio.vercel.app>

HTML, Tailwind CSS, React, Next JS, Typescript

- Built a personal portfolio website utilizing a modern tech stack.
- Leveraged Next.js for server-side rendering and optimal performance, enhancing user experience with a responsive and visually appealing design.
- Integrated TypeScript for robust type-checking, ensuring the code's reliability and maintainability throughout the portfolio.
- Utilized Tailwind CSS for efficient and custom styling, enhancing the visual appeal and user experience of the website.

### CI/CD Pipeline

<https://github.com/michaelx1999/cicd>

Python, FastAPI, PostgreSQL, Docker, AWS, GitHub Action

- Developed a CRUD application using FastAPI, integrated with a PostgreSQL database, focusing on create, read, update, and delete functionalities.
- Implemented comprehensive unit and integration testing, achieving 100% coverage, ensuring reliability and robustness of the application.
- Implemented GitHub Actions to automate comprehensive CI/CD pipelines, including running tests, provisioning AWS ECR infrastructure, and managing Docker image builds and updates, enhancing efficiency and reliability of deployments.