




LUXIN ZHANG

 (631)538-8940  lz211@duke.edu  [Linkedin](#)  [Github](#)

Education

Duke University

Aug.2021 - Dec.2023

Master in Electrical and Computer Engineering

Durham, NC

Honors: 50% Merit-based Scholarship and the only Chancellor Scholarship in 2021

Related Courses: Programming, Data Structure & Algorithm in C++, Systems Programming, Software Engineering, Human-centered Computing, Image and Video Processing, Random Signals and Noise

Stony Brook University

Aug.2018 - Jul.2021

Bachelor of Science in Applied Mathematics and Statistics

Stony Brook, NY

Honors: Dean's List(2019-2021) with GPA of 3.84, and Graduate with Magna Cum Laude

Related Courses: Object-Oriented Prog, Quantitative Finance, Mathematical Statistics, Data Analysis

Technical Skills

Programming Skills: C++, C, Java, Python, R, JavaFX, HTML5, CSS3, JavaScript, SQL

Frameworks: Angular 15, Django, Django + Rest, React, React Native, Expo

Others: VS Code, IntelliJ Idea, Git, Gitlab, Axure, Tableau, MongoDB, Linux, CI/CD, PostgreSQL, Dockers, Nginx

Related-Skill Courses: Software Engineering (JPMorgan Chase), Agile Methodology (Cognizant)

Working Experience

Duke Pratt School of Engineering

May.2023 - Aug.2023

Software Developer Intern - Led a team of Five

Durham, NC

- Developed a **React-based web app** for streamlined access to student data through a **Restful API**, facilitating quick information-access for professors.
- Created a **Django Rest**-powered system with search and CSV upload features for manual **CRUD operations** in an **SQLite Database** with **pagination** support.
- Utilized **Nginx** as the web server, improving web traffic management through **Load Balance**, and enhanced application security with **HTTPS encryption** via **Certbot**.
- Implemented **Docker** for automated deployment and integrated **HTTP authentication** for login.

Vivo Communication Technology Co. Ltd.

Mar.2022 - Jul.2022

Software Develop and Research Intern

Shenzhen, CN

- Built and maintained an Automated Image Assessment Platform in **Python**, delivering robust performance and **saving 2 man-hours** per week in image evaluation.
- Effectively integrated image algorithms into a server infrastructure using Python, enabling **seamless API access**.
- Enhanced Image Sharpness Algorithm from **63% to 82%** by implementing **OpenCV, Yolo5, HED** techniques.

Tik Tok

May.2021 - Jul.2021

Data Analytics and Platform Operation(Intern)

Beijing, CN

- Optimized **MySQL**-based algorithms, reducing data analysis in CQC from one day to one minute.
- Analyzed a 30k entry dataset with Tableau and R, improving user engagement and platform performance by 17% with **data-driven recommendations**.
- Maintained **95% accuracy**, ensuring TikTok's Learning System information-based platform's performance.

Projects

OpenAI Clone | MERN Stack, Python, NoSQL Database, OpenAI API

Jul.2023 - Aug.2023

- Crafted a user interface using **React** and developed back-end APIs with **MongoDB, Express.js, and Node.js**.
- Integrated OpenAI API for text summarization, paragraph generation, and RESTful chat, with **database interaction**.
- Conducted **unit test** on the **RestfulAPI** using **Postman** to ensure accurate responses and expected data retrieval.

RISC Game | Java, JavaFX, Axure, CI/CD, Gitlab, MongoDB

Feb.2023 - Apr.2023

- Developed a **multiplayer** web-based strategy game for up to 2 players with territory conquest and card-based features.
- Designed a **Microservice-based architecture** for scalability and maintainability and deployed a Network Game project on GitLab, using **CI/CD** for seamless integration and reliable deployments.
- Built an **end-to-end game** in Java, following **S.O.L.I.D.** design principles, with 100% branch test coverage, and used design patterns like **Abstract Factory** and **Chain of Responsibility** for object creation and validation.

Hot Potato | C++, TCP, Unix, Server-Client

Mar.2023 - Apr.2023

- Developed a robust **multi-process server-client application** adept at managing command line arguments, establishing and supervising **TCP socket-based** network communication, and facilitating seamless information exchange.
- Achieved efficient **inter-process communication**, enabling data transmission and reception between processes within the server-client architecture.