

XINHAI LENG

+1 (858) 252-5063 | xl3009@nyu.edu | New York, NY, USA | LinkedIn | GitHub | Website

EDUCATION

New York University

Master's, Computer Engineering

September 2023 - May 2025

GPA: 3.61

- Software Engineer, Operating System, Distributed System, Internet Architecture, TCP/IP, Data Algorithm and Structure, Machine Learning, Cloud Computing, Deep Learning, Cyber Security

University of California - San Diego

Bachelor's, Computer Science

September 2019 - June 2023

- Software Engineer, Web Development, Machine Learning, Data Algorithm and Structure, Computer Network, Object-Oriented-Design, System Architecture, System Programming

PROFESSIONAL EXPERIENCE

BreatheIT

Software Engineer Intern

Remote

June 2024 - Present

- Software Engineer at BreatheIT Solutions, developing innovative lifestyle management technologies to enhance well-being.
- Integrate front-end and back-end components with **JavaScript**, **React**, and **NodeJS** to ensure optimal functionality.
- Proficient in utilizing **React Hooks** to manage component state and lifecycle in functional components, employing **useState**, **useEffect** and other hooks to improve code readability and maintainability.
- Design and refine database schemas in **PostgreSQL** for dashboard features to visualize customer real-time life style status
- Design and implement **Health Score Report** based on customer health metadata with **JavaScript/HTML/CSS**, providing analyze and aggregate report to monitor customer lifestyle status and generate healthy advice.
- Develop **RESTful APIs** for Health service with **EXPRESS** and **NodeJS**, integrated with **PostgreSQL** to store life style metadata, store customer real-time lifestyle status.
- Implemented **Gitlab** for **CI/CD** to automate build processes, data processing, cleaning, and daily report generation.
- Conduct unit test to keep 80% code coverage with **Mocha** and integration tests to ensure code quality and functionality
- Integrated with **ChatGPT3.5 API** to generate healthy advice based on life style score.

NYU Game Innovation Lab

Student Researcher

New York, NY, USA

March 2024 - Present

- Fine-tuned machine learning and deep learning models using **PyTorch** and **diffusion models** to enhance AI systems in game development.
- Developed and improved web pages using **WordPress** to enhance user experience and site functionality.

Oin Auto

Software Engineer Intern

Remote

January 2024 - March 2024

- Developed a mobile application using **Flutter** that allows users to view their vehicle status and access live news feeds from the vehicle industry.
- Improved **user authentication** efficiency by 20% by developing a multi-provider authentication system using Flutter.
- Boosted application performance and user engagement by implementing comprehensive event tracking with **Firebase Analytics**.
- Utilize **agile methodologies** for project management, organize sprint planning, backlog grooming, and retrospective meetings.

PROJECTS & OUTSIDE EXPERIENCE

Interactive Chatting and Collaboration Platform

New York, NY, USA

October 2023 - February 2024

- Executed real-time text, voice, and video communication features utilizing **WebRTC** and **WebSocket**.
- Ensured secure server-side handling of user data by integrating **Prisma** with **MySQL** for optimized data management.

Real-Time Market Sentiment Analysis

New York, NY, USA

September 2023 - November 2023

- Enhanced user experience by utilizing **ARKit** to create contextual video content from scanned newspapers.
- Achieved precise market forecasts by engineering **Core ML** for real-time sentiment analysis using **Swift**.
- Boosted user engagement by 25% through deployment of feature that provided instant sentiment feedback integrated with **Twitter API** for posts.

Graphic Design SaaS Platform

New York, NY, USA

June 2024 - August 2024

- Implemented subscription management system via **Stripe** to monitor user access and ensure financial viability.
- Designed feature-complete platform incorporating an intuitive editor, authentication (Next-Auth v5), AI-driven image generation, and background removal with **stable-diffusion-3 (Replicate)**.

Personal Finance Management Application

New York, NY, USA

January 2024 - March 2024

- Implemented comprehensive expense splitting system with automated email billing, similar to Splitwise.
- Developed real-time currency conversion functionality through external API integration in **Django** to enhance user interface.
- Created interactive financial dashboard utilizing **ChartJS** and **FullCalendar** for effective transaction visualization and budget management.

Headstarter Fellowship

Software Engineer Fellow

New York, NY, USA

July 2024 - September 2024

- Completed a rigorous 7-week software engineering program, enhancing skills through practical AI projects and hackathons.
- Developed a video processing application with sentiment analysis and personalized video generation using **Python**, **JavaScript**, **TypeScript**, **Hono.js**, **TensorFlow**, **React**, and **Docker**.
- Gained hands-on experience in **Kubernetes** and **Docker** for containerization and orchestration.

Skills: Java, TypeScript, C/C++, Node.js, Python, HTML/CSS, iOS/Swift, Flutter, Pytorch, Jupyter, Next.js, AWS, Git, Maven, R, MySQL, Figma, Pandas, MATLAB, JavaScript, Express.js, MySQL, PHP, Vue.js, Angular, Django, Next.js, MongoDB, PostgreSQL, Oracle SQL, Docker, Kubernetes