XINYU (JONATHAN) GUAN

(347) 216-4394 || xinyuguan1054@gmail.com
https://www.jonathanguan.com || https://github.com/Jx1yG || www.linkedin.com/in/xinyuguan1054

Motivated Computer Science Student with hands-on experience through Projects, Internship, and Teaching Assistantship. Focused on Software Development, Deep learning, and Data-driven technologies. Eager to contribute to impactful, innovative solutions. Fluent in English and Mandarin Chinese.

EDUCATION:

Master of Science in Computer Science Candidate (May 2025) **Pace University | *GPA: 4.0* | 2023–Present**

Academic Projects:

Task Manager; Suggest and Design a Minimal CPU Architecture for Controlling Washing Machines; Parking Management System Database: Design and Implementation; Bone X-ray Classification with Deep Learning and Transfer Learning, etc.

Research Project:

CUDA Research IMG Processing.

Secure Campus Network Monitoring System.

Bachelor of Arts in Biological Science (May 2022) **University at Buffalo | 2017–2022**

CAREER EXPERIENCE:

Sep 2024- Current
Teaching Assistant – *Pace University* (Parallel Computing Class)

- Conducted in-class presentations on parallel computing concepts
- Provided hands-on guidance for students during coding exercises and class activities.
- Setting Office Hours to assist students with coding issues, conceptual understanding, and assignment grading with feedback.
- Working with the professor on a CUDA project for class exploration, focusing on real-world applications of parallel processing.

May 2021-Aug 2023
Software Engineer – *SysDesign LLC*

- Led Data Virtualization Team Projects: Lead and member of six-person team using Python and Java that improved data analysis and logging performance by over 20%
- Streamlined communication between development and operations teams, resulting in a 15% reduction in project delays.
- Developed comprehensive data reports with SQL Server Reporting Services, reducing report generation time by 25%.
- Collaborated with team members to integrate software design best practices, boosting team productivity by 30% and improving code quality.

ACADEMIC PROJECTS:

Bone X-ray Classification with Deep Learning and Transfer Learning

- Developed and implemented a Convolutional Neural Network (CNN) with ResNet50 to classify X-ray images
- Utilized TensorFlow and Keras for model building, training, and evaluation.
- Evaluated the model using metrics such as binary accuracy, precision, recall, and confusion matrices for both binary and multi-class classification, end up with a high accuracy around 92%.

AI-Powered Interview Question Generation | Pace University (Spring 2025).

- Designed and implemented resume parsing functionality, extracting text from PDFs with PyPDF2 and handling errors for unreadable files.
- Developed and optimized AI-driven interview question generation, integrating Ollama (Mistral), OpenAI, and LangChain.
- Expanded system capabilities by integrating LinkedIn & GitHub profile analysis for skill extraction and candidate evaluation.
- Worked on backend AI processing, improving data pipelines using Kafka, Flink, and MongoDB for real-time question validation.

PROFESSIONAL PROJECTS:

Bone File DNA Web APP

- Collaborated with a team of six to develop a comprehensive platform for document management, workflow, archiving, and access authorization.
- Organized Bio DNA chains to verify data accuracy, and demo testing of the application.
- Implemented advanced security features, e-signature, and blockchain integration.
- Contributed to the development of a PDF editor with QR code authentication, scanner, and translator.

Open Galaxy Web App

- Worked in a team of 6 to create a web app allowing users to choose stars and unlock galactic superpowers.
- Implemented distinctive properties, stats, and boosts for each star.
- Tech stack: Frontend - Next, Headless UI, Tailwind CSS; Backend - Solidity, .NET, Restful API; Database - MySQL.

TECHNICAL SKILLS

- **Languages**: Python, Java, C/C++, JavaScript, Shel. **Frameworks:** TensorFlow, Keras, PyTorch, React, Next.js, Vue.js, Strapi. **Databases**: MySQL, PostgreSQL, SQL Server. **Tools**: AWS (S3, EC2), Restful APIs, Docker, Microsoft SQL Server
- **Expert (★★★★★)**: Software Design, Code Writing, Performance Monitoring, Team Collaboration, Leadership