

CHENGZHA ZHOU

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EDUCATION

Johns Hopkins University

Baltimore, MD

M.S.E. program in Electrical and Computer Engineering

Aug 2025 - Jun 2027 [Expected]

- Relevant Coursework: Machine Perception, Nonlinear Optimization, Intro Algorithms

Zhejiang Gongshang University 87.84/100

Zhejiang, China

University of Sussex 3.78/5.0 | First Class Honors

Sep 2021 - May 2025

Bachelor of Engineering in Communication Engineering (Cooperative Program)

- Honor: Third Prize of Comprehensive Scholarship

TECHNICAL SKILLS

Programming Languages: Java, Python, C++, C#, C, Unity, Matlab, Arduino

Frameworks/Cloud Platforms: FastAPI, Git | Google Cloud

Libraries/Database Management: Pandas, TensorFlow, PyTorch | MySQL

PROFESSIONAL EXPERIENCE

Datalynn

New York, NY

Software Engineer Intern

Jun 2025 - Aug 2025

- Developed a scalable and modular Python crawler with on-demand data updates; deployed as a reusable plugin in staging and production environment; served as an upstream data source supporting data query.
- Built a high-concurrency scraping pipeline with Playwright and asyncio; use asyncio and aiohttp to support concurrent task and reduced end-to-end latency by 60%; processed data with Pandas and stored in MySQL Server (180K rows per day); exposed functions via FastAPI (retrieve, update, delete) for seamless integration.
- Led requirements analysis, end-to-end system design, and implementation of core components; optimized the solution to improve system efficiency by 4x compared to the initial design.
- Developed a modular plugin for distributed deployment across 5 workers enabling horizontal scalability by 5x; implemented robust error handling with detailed logging to ensure stability; used Python's asyncio for async concurrency, greatly improving crawling throughput from 0.5GB/hour to 2GB/hour.
- Collected data laid a solid foundation for subsequent data query, analysis, dashboarding; automated crawling reduced manual labor costs by 60% while improving efficiency and data accuracy.

Sunny Optical (Zhejiang) Research Institute Co., LTD.

Zhejiang, China

Software Engineer Intern

Jul 2023 - Aug 2023

- Developed proficiency in Unity 3D and C# programming to integrate VR features such as See-Through mode, image projection, and pose testing into a single application.
- Built internal testing tooling, and UI features using C# and Unity; participated in Software packaging and deployment to Android-based VR devices.
- Optimized VR application performance by 2x on older devices by reducing latency in positional data capture to 100ms.
- Implemented See-Through functionality with a simple on/off switch, enhancing user interaction with the VR environment through C# scripting.

RESEARCH PROJECT

Multi-Sensor Fusion Technology for 3D Objection Detection

Zhejiang, China

- Deployed CenterPoint framework and MGTANet model for 3D detection tasks; built training pipelines and model deployment to A100 devices.
- Conducted research with implementation of the CenterPoint framework for 3D object detection, enhanced detection capabilities in complex scenarios through the MGTANet mode.
- Built internal backend utilities for model I/O, task scheduling, and result visualization; ran training on GPU servers to improve efficiency by 2x.