Chloe (Xinyu) Wang

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EDUCATION

Carnegie Mellon University — BACHELOR'S

Major: Computer Science, Architecture — May 2024 (expected)

- **Experience**: Teaching Assistant for CS 15-441/641: Networking and the Internet (23F)
- **Relevant Coursework:** Computer Systems, Parallel and Sequential Data Structures and Algorithm, Imperative Programming, Data-Focused Programming, Artificial Intelligence, Object Oriented Design, Software Engineering Practicum, Mobile Web Design & Development, Networking and the Internet

SKILLS

Languages: Java, Python, Typescript, C, C++, SML, HTML, CSS

Frameworks/tools: React, Spring Boot, Django, Docker, AWS, SQL, MyBatis, DynamoDB, Git

Design: Figma, InDesign, C4D, Photoshop, Illustrator, Rhinoceros 3D, After Effects, Auto CAD, Adobe XD

Interests: bouldering, fashion design (selected to design a line at Lunar Gala runway), woodwork, skiing, tennis

PROFESSIONAL EXPERIENCE

ZTE Corporation | ***Software Engineer Intern*** — Nanjing, CN | May 2023 – Aug 2023

- Utilized Java, Spring Boot, and MyBatis to develop 4 backend features to perform bulk operations on set-top boxes, such as device monitoring and parameter changes, optimizing device management capabilities and functionality.
- Implemented AES-128 encryption for the storage of device serial numbers in database to address security concerns.
- Created a suite of 300+ unit tests using JUnit and Mockito, increasing test coverage by 11%.
- Conducted performance optimization for the distributed database settings, resulting in a 15% increase in throughput.

Ragene Technology | ***Software Engineer Intern*** *(Part-time)* — Remote | May 2023 – Aug 2023

- Collaborated with a team of 4 to develop the visualization panel for the no-code single-cell RNA sequencing analytics platform using Django and React, amplifying cell data insights and produce publication-ready figures.
- Developed the backend and frontend for cell-annotation features, streamlining data processing and analysis.
- Led the development of the official website with ReactJS for web and mobile compatibility, resulting in a 300+ traffic increase within the first month.

Huawei Technologies Co., Ltd | ***Software Engineer Intern*** — Nanjing, CN | Jun 2021 – Aug 2021

- Built interactive particle morphing framework for generating 3D interactive animation with three.js and babylon.js, cutting animation creation time by approximately 90% compared to manually building in C4D.
- Produced 3D visualization solutions for Huawei's Healthcare's frontend access points with JavaScript and Figma.

CMU Ex-Change | ***Website Design Assistant*** *(Part-time)* — Pittsburgh, PA | Feb 2020 – Dec 2020

- Developed site content, functionality, and navigation for the official website of the Ex-Change online exhibition, creating wireframes, prototypes and responsive website pages that generated up to 600+ daily site traffic.

Patkau Architects | ***Computational Design Intern*** — Vancouver, BC | Jun 2020 – Aug 2020

- Created algorithm for 3D quasicrystal structure generation for post-covid workspace planning with Python and Grasshopper, reduced design time by 80% compared to manual building in Rhino.

PROJECTS

Music Sentiment Visualization Framework — Mar 2023

- Led a team of 3 to develop a Java and TypeScript-based web visualization framework for music sentiment analysis with dynamic plugin loading, following design patterns and OOP principles.
- Supported 30+ plugin implementations with Git workflow, delivering technical expertise and seamless integration.

TCP with TCP Reno Congestion Control — Sep 2022

- Implemented the underlying mechanisms of TCP in C, including three-way handshake, package transmission and RTT estimation, improved throughput by up to 90% with flow control and TCP Reno congestion control.

Dynamic Storage Allocator — Aug 2022

- Built an efficient dynamic storage allocator for C programs to reduce internal and external fragmentation. Achieved result with balance of space utilization and speed, improving utilization to 73.6% with throughput of 8774.