

Wenyu Pan

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EDUCATION

Northeastern University

M.S. in Computer Science | GPA 4.0/4.0

Northeastern University

B.S. in Computer Science and Mathematics

- Honors: Dean's List Awardee, Spring 2018, Fall 2019, Spring 2022.

San Jose, CA

01/2023 – 12/2024 (Expected)

Boston, MA

09/2017 – 12/2022

EXPERIENCE

Alibaba Cloud

Software Engineer Intern

Remote

01/2023 – 09/2023

- Played a key role in Alibaba Tair database iterations, a Redis-compatible in-memory self-deployed database, boosting its performance and scalability for **70,000+** Ali Cloud users, and enhancing efficiency by **5%** for customers.
- Leveraged **Docker**, **K8s**, **Scaffold** and **NATS** to enable microservices, supporting programming language agnostic dev.
- Optimized cloud data operations with **RDS**, **MySQL**, **Redis**, and **CDN**, resulting in a **5%** increase in processing speed and a **10%** reduction in server load.
- Expedited product delivery by **15%** via applying **Agile-SCRUM** development to teams and implementing Java testing framework, which also ensure a flawless post-deployment performance.

Joblogic-X

Software Engineer Intern

Plano, TX

05/2022 – 12/2022

- Led the development and deployment of an innovative social video-sharing platform, incorporating user engagement functionalities such as likes, saves, and comments. Launched the app on both the Google Play Store and the Apple App Store.
- Implemented and managed over 15+ **RESTful APIs**, focusing on critical features such as video uploading, user authentication, and registration with Node.js and MongoDB. Achieved a **30%** improvement in video upload efficiency and a **20%** increase in user session duration through targeted A/B testing.
- Developed the application's front-end with **React Native** and **TypeScript**, integrating **Redux** for state management and **RESTful APIs** for seamless data interaction. Enhanced performance through lazy loading and streamlined development with **Git** for version control and **Webpack** for efficient build automation.

University of Science and Technology of China

Computer Science Researcher, Advanced-Data Systems Lab (ADSL)

Hefei, China

06/2021 – 12/2021

- Participated in a 20-member research team, achieving a **30% increase** in Deep Neural Networks performance through innovative **gradient compression** techniques over six months.
- Developed and rigorously tested a suite of bespoke algorithms for **HiPress**, conducting comprehensive performance analyses to define system boundaries and establish efficiency benchmarks, which empowered the team to prioritize innovation and streamline research efforts.
- Led the in-house platform's **AWS** migration using **CloudFormation**, optimized with **CTK/STK**, yielding **20%** cost savings, **30%** quicker deployments, and **40%** fewer outages, thereby enhancing research efficiency by **30%**.

PROJECTS

Employee Management System (EMS)

Fullstack | 09/2023 – 11/2023

- Designed and developed the Employee Management System (EMS), aimed at streamline and improve the management of employee data. (Link)
- Employed **React.js** on the frontend to construct an intuitive user interface for handling employee data operations. On the backend, **Spring Boot** was used to build **RESTful APIs**, providing seamless data integration and server-side logic execution.
- Implemented cloud-neutral EMS deployment on **GCP** and **AWS** with multi-region read replicas and write consistency, achieving high availability and scalable infrastructure.

HealthLink API

Backend | 09/2022 – 12/2022

- Developed the HealthLink API, a secure platform for patient data management and telehealth services, with a focus on robust authentication and HIPAA compliance.
- Enhanced user authentication with **JWT** and **OAuth2** for Google SSO, and fortified data security with **SHA-256 encryption** via **Spring Security**, reducing security breaches and unauthorized access.
- Utilized **Grafana** for comprehensive monitoring of authentication processes and system health, and orchestrated a **Docker containerized** deployment to enhance security and scalability of the healthcare management system.

Covey Town

Fullstack | 01/2022 – 04/2022

- Contributed to developing Covey.Town, a remote collaboration tool offering a virtual meeting space for multiple simultaneous video calls, enabling users to fluidly transition. (Link)
- Implemented 10+ webpages with **TypeScript** and **React**, creating a responsive and interactive video streaming experience with **Tailwind CSS**, enforced by **Jest.js** for snapshot testing.
- Enhanced streaming with **CRUD RESTful APIs** using **Express.js** and **MongoDB**; deployed via **AWS EC2**, utilizing **auto-scaling** and **load balancing** for peak performance.

TECH SKILLS

- Programming Language:** Java, TypeScript, JavaScript, Python, C/C++, SQL
- Front-end Tech:** React.js, Redux, GraphQL, AngularJS, HTML, CSS, Tailwind, Jest.js
- Back-end Tech:** Spring, SpringMVC, JUnit, Node.js, Express.js, Microservices, Docker, Redis, MongoDB, MySQL, OAuth2
- Other Tech:** AWS (EC2, CloudWatch, RDS, CloudFormation), GCP, Kubernetes (K8s), NATS, Scaffold, Git/Github, SSH, Linux, Postman, SHA-256 encryption, HTTPS, CORS, Grafana, Google Charts, Agile-SCRUM, CTK/STK