

Education

University of North Carolina at Chapel Hill

North Carolina, USA

BSMS in Computer Science | BS in Mathematics

Aug 2018 - May 2022(BS) - Aug 2023(MS)

- **Undergraduate GPA: 3.8/4.0**, Dean's List from 2018-2023
- **Courses:** Advanced Operating System, Advanced Machine Learning, Digital logic, Algorithms and Analysis, Database, and Modern Web Dev
- **Research:** Information Retrieval and Data Visualization (Undergraduate); Algorithm Visualization, and Systems Research

Work Experience

IBM

North Carolina (remote), USA

Full Stack Developer Intern

May 2021 - Aug 2021

- Improved user experience on a development environment management platform that supports 2000+ IBM developers each month.
- Optimized administrative content tasks to reduce workload for developers, resulting in faster content updates and fewer required deployments.
- Founded an automated validation service using Sails.js that simplifies maintaining the employee database, significantly reducing the time previously required to process this task manually.

Cymantix

North Carolina (hybrid), USA

Software Engineer

Oct 2021 - Feb 2023

- Engineered, with a team of five developers, a full-stack SaaS machine learning-driven platform that integrated a WebRTC video conferencing app, an information retrieval app, and a core identity API. The platform played a crucial role in the company securing seed-round funding.
- Incorporated Microsoft Azure into our platform per our client's request, providing more flexible login choices and enabling seamless secured data transfer between our data retrieval app and Microsoft's cloud storage.
- Refactored the codebase and transitioned from pure HTML, CSS, and in-line JavaScript to Next.js
- Utilized Socket.io to parallelize our data retrieval platform's real-time news analysis process, leading to a 70% acceleration.
- Strengthened our critical data update pipeline by implementing bash scripts, Python, and a Cron job, resulting in increased reliability.

Laboratory of Applied Information Science at UNC - Chapel Hill

North Carolina, USA

Research Assistant

Apr 2021 - Apr 2023

- Established data visualization using Tableau for UNICEF to monitor the health conduction of children and women across 200 countries.
- Initiated a mobile application for a health data exchange platform using React Native and Flask Backend.

ChampionPDI

Chapel Hill, UNC

Tech Lead / Product Manager

Jan 2023 - Present

- Led a team of 6 new developers to create a sales representative management platform that received 200+ users from the first launch week.
- Designed the whole tech stack used in the project and the development pipeline.
- Laid the project's foundation, from the code base's structure to the production timeline.
- Held weekly scrum meetings and code reviews to ensure all team members were transparent with their tasks and could deliver on time.

Lenovo

Beijing, China

UI/UX Engineer Intern

Jun 2017 - Aug 2017

- Designed Lenovo's B2B web store with Mocking-Bot (similar to Adobe XD), providing retailers with access to product information for over 1000 products and remote technology support and restocking capabilities.
- Negotiated with the marketing and human resources departments to determine the necessary resources to complete the project.

University Projects

SplinterDB

North Carolina, USA

UNC - Chapel Hill

Jan 2023 - Present

- Explored the area of Key-Value store for modern solid state storages by working closely with researchers from VMWare.
- Optimized SplinterDB's cache lookup table to support insufficient memory issues in extreme cases such as SGX.

Social Web App

North Carolina, USA

UNC - Chapel Hill

Feb 2020 - May 2020

- Partnered with three classmates to engineer a social web app using HTML, CSS, and vanilla JavaScript.
- Built an entire back-end API and authentication system with documentation to guide the front-end team's integration and use.
- Presented the project to a class of over 100 students, receiving positive feedback on its design, functionality, and overall execution.

Easy Access

North Carolina, USA

UNC - Chapel Hill

Feb 2022 - Apr 2022

- Restructured the back-end database schema for better scalability and data management efficiency.
- Documented the entire project structure, providing clear guidelines for future development teams to build upon and improve.
- Remodeled the react code from five large JavaScript files to over thirty component files for readability and reusability.

Skills

Programming

Python (Pandas, TensorFlow, NumPy, Scikit-learn. etc.), C/C++, HTML/CSS, JavaScript, SQL, Java

Miscellaneous

Linux, Shell (Bash/Zsh), \LaTeX , Tableau, Microsoft Azure, Firebase, Next/React, React Native, Flask, JQuery, CronJob, Elasticsearch

Languages

English (Professional Proficiency), Mandarin (Native Proficiency)