

Danny Xu

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EDUCATION

University of Wisconsin-Madison

Madison, WI

Bachelor of Science in Computer Science, GPA: 4.0

Graduation: May 2026

Coursework: Operating Systems (Fall 2024), Data Structures and Algorithms, Calculus I-III, Linear Algebra

Affiliations: CodePath

WORK EXPERIENCE

Apple - Software Engineer Intern

Feb 2024 - Aug 2024

- Built a **Slack bot** using Python, Flask, Slack API, Kubernetes, increasing tool adoption frequency by over **600%**.
- Implemented an automated, end-to-end **CI/CD** pipeline in JSON to qualify tools for **10+ teams** with parallel, cross-platform tests in Python and Swift, reducing manual verification time by **50%**.
- Engineered **command line** tools for pull-request/build validation in Python used daily by **50+ engineers**.

CommScope - Software Engineer

Aug 2023 - Jan 2024

- Led a team of three in the continued development of a **full stack web app** for test analysis, using Next.JS and ASP.NET, with a projected **\$120K** in cost savings across 12 test labs.
- Refactored **SQL** database schema through database normalization techniques, resulting in **40% data** reduction.
- Implemented a **CI/CD** pipeline in YAML using **Azure DevOps**, speeding up build times by **20%**.

CommScope - Software Engineer Intern

May 2023 - Aug 2023

- Engineered a full stack React dashboard for test analysis, capable of loading **100K+ measurements** under **1s**.
- Migrated the lab database system to Microsoft SQL Server with a ASP.NET and Entity Framework Core (ORM) backend, enabling the storing and retrieval of **20M measurements** a year for **80%** more efficient lab testing.
- Implemented a custom lossy data compression algorithm with multi-threading and thread synchronization in C#, achieving a **400% speedup** in REST API response time and significantly improved website load times.

RESEARCH EXPERIENCE

UW-Madison IDiA Lab - Research Assistant (Medical Deep Learning)

Sep 2023 - Jan 2024

UMN Small Satellite Research Lab - Research Assistant (Satellite Unit Testing)

Nov 2022 - May 2023

PROJECTS

BrawlWizard • GitHub

Python, pandas, scikit-learn, DigitalOcean

- Develop a site for Brawl Stars statistics using player data from Brawl Stars API, scraping over **1M games/hour**.
- Engineer a draft **recommendation system** with **97% accuracy** using a Random Forest and feature engineering.

Quizzify, Best Use of LLMs@HackIowa • GitHub • Demo

TypeScript, Next.js, Flask, NLP

- Engineered a full stack React.js/Next.js app to create an AI-driven **text-to-quiz** generator, beating **68 teams**.
- Developed a **NLP pipeline** using BERT, HuggingFace, spaCy, and NLTK to generate quiz questions from text.

Pipelines • GitHub • Demo

MongoDB, Express.js, React.js, TailwindCSS

- Contributed to an open-source **career trajectory** website using React.js and TailwindCSS, resulting in **1K+** users.
- Spearheaded team of 4 in backend development, developing **MongoDB** schemas and REST APIs in Express.js.

Cash Register Utility App

Swift, SwiftUI, TestFlight

- Built an **iOS app** with Swift, SwiftUI, and MVVM design to aid cashiers. Conducted beta-testing with TestFlight.
- Successfully published app to iOS App Store, resulting in over **1K+ downloads** and serving **9K+** active sessions.

TECHNICAL SKILLS

Languages: Python, Java, C, C#, Go, SQL, NoSQL, TypeScript, JavaScript, Swift, HTML, CSS

Tools: MongoDB, Docker, Kubernetes, AWS, Azure, Linux, Git/GitHub, Agile, Jira

Frameworks: PyTorch, TensorFlow, React.js, Next.js, Node.js, .NET, Flask, SwiftUI

Concepts: Artificial Intelligence, Machine Learning, Embedded Programming, Data Science, Backend, Systems