Tyler Liu

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Experience

Tenon, Software Engineer Intern | Indianapolis, IN — December 2023 - Present

- Programmed requested UI features to meet a product release deadline for Eli Lilly, securing a 6 figure contract with the company
- Integrated Tenon with Veeva and Mailgun by designing custom actions and flows with ServiceNow's flow designer using Veeva and Mailgun's APIs
- Developed scripted REST APIs in **JavaScript** to fetch, update, and delete records stored in ServiceNow tables from Tenon's front end application
- Created over 10 custom UI components and npm packages, which can be reused throughout the entire application to save hours of development

Purdue University, Undergraduate Teaching Assistant (CS 180, CS 240) | West Lafayette, IN — August 2023 – May 2024

- Taught students how to implement data structures from scratch and manage dynamic memory in C
- Facilitated lab sessions to help students debug their code and understand difficult concepts in C like pointers and the program stack
- Guided students on creating large scale applications that incorporate concurrency, thread synchronization, and networking by holding office hours to teach students about Java classes and how Java functions on a low level

Tenon, Software Engineer Intern (Full Time Intern) | Indianapolis, IN — May 2023 - August 2023

- Developed a custom activity stream (chatbox) app component with the **ServiceNow tech stack**, enabling communication and streamlining workflow between marketers on the Tenon application
- Architected a rich input text field from scratch with the ability to mention users and handle file attachments, allowing for quick and seamless notifications on projects and campaigns
- Integrated ServiceNow REST APIs to query, write, and render comments, attachments, and system record updates
- Collaborated with the senior product designer and chief product officer through **Figma** to ensure that custom UI components met styling requirements
- Implemented logic and feedback from the head of engineering to reduce memory reallocation and UI rerendering by 50x, drastically improving performance
- Analyzed and refactored 1000+ lines of **Javascript** code to improve runtime and space complexity, enhance UX, handle edge cases, and improve code readability

Fernligo, Computer Science Teacher | San Francisco Bay Area — June 2021 - August 2021

- Created a curriculum and taught high school students **Java** principles, including object oriented programming, looping, data types, and arrays
- Formulated challenging coding questions which developed students' problem solving skills

Education

Purdue University — West Lafayette, IN

Bachelor of Science in Computer Science Honors & Bachelor of Science in Data Science — *August 2022 - May 2026*

GPA: 4.0/4.0 | Dean's List

Coursework: Data Mining/Machine Learning, Analysis of Algorithms, Data Structures, Operating Systems, Computer Architecture, Intro to AI

Software Projects

C Compiler | C, x86 Assembly, Lex, Yacc — November 2023 - December 2023

- Developed a compiler that translates C code into x86 Assembly code using Lex tokenization and Yacc context-free grammar
- Implemented a stack machine using registers to speed up memory access and optimizations like short-circuiting to prevent segmentation faults

Quick MP | *Java* — October 2022

- Managed the production of a math generation tool that uses real time data to provide students with targeted math problems
- Developed full-stack code to ensure seamless integration between the feedback algorithm and GUI

Sewer Skedaddle | *C#, Unity* — August 2021

- Led a 5-person team as the Game Producer to release a 2D platformer game (on itch.io) with all original assets by scheduling and acquiring deliverables to meet the 2 week deadline
- Collected and dissected feedback from Carnegie Mellon University faculty and iterated on feedback to improve the UX
- Implemented movement mechanics including double jumping, friction sliding, and shapeshifting using **C#**

The Tale of Ikenchay | *C#, Unity* — July 2021

- Developed a 2D action-adventure dungeon game in Unity based off *The Legend of Zelda* in a 5-person team
- Programmed AI enemies, level layouts, game mechanics, and animations with **C#** as the programming department lead

Skills

Languages: Javascript/Typescript, Python, HTML/CSS, Java, C, x86 Assembly, R, C#
Frameworks/Tools: SQL, Next Experience UI Framework (ServiceNow JS framework), React