

DECLAN LIN

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EDUCATION

Stony Brook University College of Engineering

Bachelor of Science in Computer Science | GPA: 3.67 | Dean's List: 2021 - 2023

Stony Brook, NY

exp. December 2025

Courses: Object-Oriented Programming (Java), Data Structures & Algorithms, Programming Abstractions, Systems Fundamentals, Software Development, Computer Networks, Compiler Design, Software Security, Analysis of Algorithms

SOFTWARE PROJECTS

Book Tracker API | Go, Gin, GORM, PostgreSQL, Docker

July 2023

- Designed and implemented a RESTful API for a book tracking application that allows users to record their reading progress, featuring JWT authentication and a CORS middleware.
- Architected a modular monolith, eliminating cyclic dependencies and improving code maintainability and scalability.
- Performed comprehensive unit and integration testing on over **10** major modules using a PostgreSQL testing database instance to ensure seamless functionality.

Blogging Platform API | Python, FastAPI, SQLAlchemy, PostgreSQL, Docker

June 2023

- Developed a RESTful API for a blogging application that allows users to post and upvote other users' posts, featuring OAuth 2.0 authentication and a CORS middleware.
- Utilized Alembic to version control database schema changes and automate database migrations, enabling efficient rollbacks when needed and streamlining the deployment process.

DALL-E Image Generator Clone | MERN, MongoDB, Vite/React, Tailwind CSS

June 2023

- Developed a full-stack application which communicates with the OpenAI API to generate images from a text prompt.
- Implemented support for features like community posting, keyword search, and local image downloads.

Other: UFC Stats Web Scraper, Huffman Tree Text Compression Utility, Dynamic Memory Allocator, Daemon Manager

RELEVANT EXPERIENCE

Sherman Abrams Laboratory

Brooklyn, NY

Laboratory Technician

December 2021 - January 2022

- Conducted PCR testing on **1,200 - 1,500** COVID-19 and GI samples weekly, achieving a **98%** accuracy rate.
- Utilized LabOS, a cloud-based LIS, to deliver immediate test results to clients via an online portal.
- Collaborated with cross-functional teams to implement process improvements, increasing lab workflow productivity by **25%**.

Mechano-Microbiology Laboratory

Brooklyn, NY

Laboratory Technician

September 2019 - February 2021

- Generated and analyzed over **400** video datasets of bacteria interacting with gel micropillars, advancing our understanding of bacterial pili mechanics and its biomedical applications.
- Recorded, sanitized, and plotted **75 - 100** data points daily utilizing a MATLAB object-detection software and Microsoft Excel, resulting in accurate characterizations of bacterial pili mechanics.
- Facilitated bi-weekly team meetings to discuss project progress, address challenges, and optimize lab workflow efficiency.

TECHNICAL SKILLS

Programming Languages: Java, Python, Go, C, Javascript, HTML, CSS

Frameworks: Gin (Go), FastAPI (Python), MERN (MongoDB, Express.js, React, Node.js)

Databases: PostgreSQL, MongoDB

Developer Tools and Applications: Git/GitHub, Docker/DockerHub, Postman, Visual Studio Code, Microsoft Office

CERTIFICATIONS

Google Cybersecurity Professional Certificate | Coursera

December 2023

- Learned risk and threat detection, mitigation, and management, ensuring security for business operations and company assets.
- Used tcpdump and Wireshark to capture and analyze internet traffic.