

David Lin

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EDUCATION

Stony Brook University

May 2024

Bachelor of Science in Computer Science

Relevant Coursework: Object-Oriented Programming, Data Structures & Algorithms, Machine Learning, Database Systems, Web Development

EXPERIENCE

Undergraduate Teaching Assistant

Feb 2023 – May 2023

Stony Brook University

Stony Brook, NY

- Instructed the weekly recitations of more than 30 students in concepts of system design in C
- Delivered lectures and facilitated discussions on system fundamentals for university students, ensuring a deep understanding of complex concepts such as dynamic memory, concurrency, and revision control/git
- Conducted personalized tutoring sessions during weekly office hours for over 100 students

PROJECTS

Fair Maps | *Maven, Java, React, Python*

Jan 2024 – May 2024

- Led a team of 4 students to implement a web application that displayed district plans, state electoral results, and demographics, utilizing Leaflet to map the coordinates generated by the computational cluster SeaWulf
- Implemented a script in Python that applied the MGGG Recom algorithm to mitigate gerrymandering in the state
- Utilized the Pandas library to clean and format 10,000 ensembles generated by the high-performance computing cluster SeaWulf, ensuring JSON data conforms to the MongoDB schema

Movie & Play | *MySQL, HTML, Java*

Aug 2023 – Jan 2023

- Spearheaded the implementation of a streaming service that showcases hundreds of the latest movies and shows, leveraging Apache Tomcat for the deployment and dynamic rendering of JavaServer Pages (JSPs)
- Built a Java DataBase Connectivity (JDBC) layer that executes SQL queries on the MySQL database
- Created a relational database system using HTML, MySQL, and Servlet API to simulate an online rental site

Buffer Overflow | *MongoDB, Express, React, Node.js, Git*

Mar 2023 – Sep 2023

- Created a forum with a RESTful API backend for managing and storing user-submitted questions and answers
- Enhanced user security with Bcrypt and JWT, ensuring confidentiality via API requests with Express.js
- Integrated React.js frontend with Node.js/Express.js backend for efficient client-server communication using Axios

Tunes | *MongoDB, Express, React, Node.js, Git*

Oct 2022 – May 2023

- Built a music streaming platform using third-party APIs such as the YouTube API, enabling users to create profiles, playlists, and support media playback seamlessly in React
- Validated and parsed user's request prior to making queries to an external database
- Engineered an efficient and scalable backend API to enable seamless communication and performance, utilizing Postman to test the API locally before deployment

LEADERSHIP

Theta Tau Professional Co-ed Engineering Fraternity

Nov 2021 - Present

Stony Brook University

Stony Brook, NY

- Reached out to 200 nonprofit organizations to coordinate career preparation events on campus
- Designated tasks to over 15 members in the service committee to meet University Five Star Requirements
- Planned 6 service events and supervised the completion of over 120 service hours for 30 brothers

TECHNICAL SKILLS

Languages: Java, Python, Javascript, C, HTML/CSS, Assembly, OCaml, SQL

Frameworks/Libraries: React.js, Express, Spring Boot, Pandas, Bcrypt, Node.js

Developer Tools: Amazon Web Services(AWS), Git, MySQL, MongoDB