David Lin

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EDUCATION

Bachelor of Science, Computer Science   *May 2024*
Stony Brook University | GPA: 3.3/4.0

PROJECTS

State Redistricting Application   *Feb 2024 – May 2024*
• Worked on a team of two to implement a web application that displays district plans, state electoral results, and the demographics of a state to determine racial/ethnic unfairness
• Researched the high performance computing cluster SeaWulf to generate 10,000-plan ensemble to be used to compare the fairness of the current district plan with the generated distribution
• Used React.js, Java, NoSQL, and Python to build the application

Online Movie Rental   *Aug 2023 – Dec 2023*
• Deployed a streaming service that distributes hundreds of the latest movies and shows, focusing on the Recommender Systems that would cater the SPA to the interests of the customer
• Designed and implemented a JDBC-based layer that interacts with the MySQL database to provide the most recently updated list of available movies
• Created a relational database system to support simultaneous transactions made by the manager, customer, and customer representative

Buffer Overflow   *Aug 2023 – Dec 2023*
• Established a forum serving as a library of Q&As made specifically for peer programmers
• Secured users using bcrypt and JWT, preserving confidentiality through middleware for 90% of API requests
• Built a full stack web application of Stack Overflow with a RESTful API

Media Player   *Jan 2023 – May 2023*
• Built a React web application that enables the creation of multiple playlists, supports media playback, and includes a search page to return information on a specific audio track
• Validated and parsed user submitted data prior to making queries to an external database, and utilized Postman to test the API locally before deployment
• Engineered an efficient and scalable backend API to enable seamless communication and performance

PROFESSIONAL EXPERIENCE

Teaching Assistant – Stony Brook, NY   *Aug 2022 – Dec 2022*
Stony Brook University
• Responsible for teaching university students concepts regarding system fundamentals
• Managed and instructed weekly recitations of more than 30 students on concepts in C and assembly language
• Conducted personalized tutoring sessions during weekly office hours for over 100 students

LEADERSHIP

Theta Tau Professional Co-ed Engineering Fraternity – Service Chair   *Nov 2021 - Present*
• Reached out to hundreds of nonprofit organizations to organize events on campus
• Designated tasks to 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

SKILLS

Languages: Java, Python, Javascript, C, HTML, CSS, Assembly, OCaml
Frameworks/Libraries: React.js, Leaflet, Express, MongoDB, Spring, Pandas, Node.js, MySQL