

Jason Nguyen

Riverside, CA | US Citizen

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EDUCATION

Bachelor of Science in Computer Science

Sept. 2021 – Dec. 2024

University of California, Riverside

Riverside, CA

- **GPA:** 3.90/4.00
- **Awards/Scholarships:** Dean's Honors List for 7 quarters, Chancellor's Honors List for 2 quarters, Regents Scholarship
- **Relevant Coursework:** Database Management Systems, Data Structures and Algorithms, Machine Learning, Embedded Systems, Natural Language Processing, Computer Graphics, Computer Security

EXPERIENCE

Grader for CS150 Automata and Formal Languages

Sept. 2023 – Dec. 2023

University of California, Riverside

Riverside, CA

- Maintained a strict grading workflow for a class of nearly 150 students to ensure certain grading deadlines are met
- Demonstrated a strong attention to detail by providing valuable feedback on submissions to clarify difficult course concepts

PROJECTS

Social Media App | *React, HTML, CSS, JS/TS, Express.js, MySQL, Redis* • [Link](#)

Feb. 2025 – May 2025

- Implemented login functionality along with JWT-based access tokens, enhancing authentication speed allowing for a better user experience whilst preserving user security
- Developed a real-time private messaging system with **Socket.io** and utilized **MySQL** for message persistence after the socket connections are severed
- Created an interactive explore page which allows for users to share photos, ask questions, and post ideas, and encourages user engagement through comments and reactions
- Utilized **Redis** and **Tanstack query** for backend and frontend caching to reduce server load and improve overall response times leading to a better user experience

Scientific Text Classification | *Python, Matplotlib, Pandas, NumPy*

Oct. 2024 – Dec. 2024

- Evaluated and compared multiple machine learning models to determine the most effective vectorization techniques, similarity measures, and hyperparameter values that maximized F1-score for scientific text classification
- Optimized code performance achieving **10x improvement** by using batch multiprocessing and leveraging data structures which allowed for quick computation and lookup
- Visualized model performances and conducted in-depth analyses using **Matplotlib** and **Pandas** to assess model accuracy and communicate results clearly

Medical Search Engine | *HTML, CSS, JS, Python, Flask, React* • [Link](#)

Jun. 2024 – Sept. 2024

- Led the development of a responsive front-end interface using **React** and **CSS**, allowing for a seamless user experience across all devices with various screen sizes
- Engineered a relevance scoring algorithm that accurately ranks search results and URL relevance based on users' medical inquiry
- Built a **Flask-based API** in **Python** permitting fetching from the front-end and processing medical data from multiple sources with caching which provides high-speed data retrieval and accurate search results

TECHNICAL SKILLS

Languages: Python, JavaScript, TypeScript, HTML, CSS, SQL

Frameworks & Libs: React.js, Express.js, Next.js, Jest, Playwright

API Architectures: REST

Cloud: Amazon Web Services (AWS)

Tools: Git, VS Code, Node.js, Docker, Nginx, Redis