Nathan Liu

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EDUCATION

University of California, Berkeley

May 2026

Bachelor of Arts in Data Science, Minor in Computer Science

GPA: 3.70/4.00

• Coursework: Structure and Interpretation of Computer Programs, Data Structures, Machine Structures, Introduction to Data Science, Probability for Data Science, Principles & Techniques of Data Science, Introduction to Full-stack Web Development

PROJECTS

 $\textbf{Spotify Sync \& Scheduler} \mid \textit{React.js}, \textit{Node.js}, \textit{Express.js}, \textit{MongoDB}, \textit{WebSocket}$

- Developed a two-in-one live Spotify playlist collaboration and scheduling planner application that utilizes Spotify Web API.
- Spotify playlist collaboration integrates multiple users to develop a consensus-liked playlist and similar-liked music based on genre, artists, and likes.
- Designed an intuitive drag-and-drop interface for creating personalized weekly schedules with real-time updates.
- Integrated CI/CD pipelines using GitHub Actions to automate testing, linting, and simplifying the deployment process.

PokeAPI & BartAPI | Python, JavaScript, HTML/CSS

- Integrated pokeapi.co to fetch and display Pokémon details such as abilities, stats, types, and evolution chains with a user-friendly.
- Developed efficient API integration workflows through Python Requests to retrieve and process data.
- Connected to api.bart.gov to provide real-time transit schedules and alerts, ensuring accurate and up-to-date information for users.
- Designed and streamlined methods for parsing and handling JSON responses, ensuring seamless integration and optimized data cleaning.
- Developed search and filter features to allow users to find specific Pokémon or customize transit pathing and scheduling in real-time.

Database Inventory Analytics | MySQL, Python, Pandas, Matplotlib

- Designed a centralized SQL database consolidating sales and inventory data for real-time tracking.
- Indirect integration with POS system and data integration with mysql.connector, consolidating sales and stock data together visually using Pandas and Matplotlib.
- Benefited long-term inventory maximization which created a roughly 15% decrease in spending on inventory and streamlined employee schedules to maximize profit and furthermore minimize spending.

 $\textbf{Personal Website} \mid \textit{HTML/CSS, JavaScript, Express.js, Node.js, ImageMagick, Wrangler, S3~API, Cloudflare \mid nliu.org$

- Built a full-stack personal website with dynamic APIs and image processing using Express.js, Node.js, and ImageMagick.
- Deployed via Cloudflare with GitHub CI/CD and Wrangler for automated builds and deployments.
- Integrated S3 buckets for efficient media storage and retrieval with dynamic uploading to Cloudflare and automatic website update.

EXPERIENCE

Happy Lemon USA

Sept. 2021 - Sept. 2024

Shift Manager

Danville, CA

- Responsible for leading 14 employees and scheduling employees for three years ensuring smooth operations and productivity.
- Trained and hired 7 staff members to optimize workflows for front and back-of-house.
- Resolved issues, customer concerns, and communicated frequently to create a positive work environment.

TECHNICAL SKILLS

Languages: Python, SQL, C++, Java, JavaScript, HTML/CSS, TypeScript, Scheme

Framework & Libraries: Next.js, React.js, Express.js, Node.js, MongoDB, Pandas, Matplotlib, NumPy, Seaborn Developer Tools: Git, Jupyter Notebook, GitHub, Cloudflare, AWS, VS Code, IntelliJ, Figma, Microsoft Office, Adobe

Products