

# LUKE THILGEN

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## SKILLS

- **Languages:** Python, Java, JavaScript/TypeScript, SQL
- **Backend & APIs:** Node.js, Express, REST APIs
- **Frontend/UI:** React, Dash, Plotly, HTML/CSS
- **Databases:** MySQL, PostgreSQL, MongoDB
- **Platforms & Tools:** Git/GitHub, Linux, GitHub Actions, Docker, Postman, pytest, OpenAI API, Hugging Face Spaces
- **Focus:** Backend APIs, data processing, interactive visualization, testing/CI

## EXPERIENCE

### **StudentConnect — Back-End Lead (Team Project)** · Jan 2024 – May 2024 · San Francisco, CA

- Designed and shipped REST APIs (Node.js/Express) for core platform features.
- Integrated MongoDB and streamlined request handling to reduce latency and errors.
- Partnered with front-end to align endpoints; added basic usage analytics/logging and a Postman collection.

## PROJECTS

### **NeuroLearn — Interactive 3D neuroanatomy** · Python, Dash/Plotly, Trimesh · Nov 2024 – Nov 2025

- Built a clickable **3D brain** with region metadata and **AI Q&A**; added **session chat memory** and **per-IP rate limiting** to keep usage safe.
- Deployed a **live demo on Hugging Face Spaces** with environment-based config; added input clamping and daily global call caps.
- Repo: [NeuroLearn](#), Demo: [Live Demo](#)

### **Pharmaceutical Inventory Management DB** · MySQL, SQL · Aug 2024 – Dec 2024

- Normalized schema (**3NF**) for users, patients, prescriptions, inventory, and orders; added constraints and indexes for integrity.
- Wrote procedures/views for low-stock and expiration alerts; **reduced full-table scans** on key queries with targeted indexes.
- Added seed scripts and ERD/EER diagrams under [/docs](#) for quick onboarding.
- Repo: [Pharmaceutical Database](#)

## EDUCATION

### **B.S., Computer Science** — San Francisco State University, Dec 2024