

# Jacky Li

[contact@jackyvli.com](mailto:contact@jackyvli.com) • +1-347-699-6680 • US Citizen • [Linkedin.com/in/jackyvli](https://www.linkedin.com/in/jackyvli) • [jackyvli.com](https://jackyvli.com)

## Education

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University of Connecticut

Storrs, CT

*Bachelors of Science: Computer Science Major, Mathematics Minor*

May 2026

**Relevant Coursework:** Algorithms & Complexity, Systems Programming, Computer Architecture, Software Engineering, Cloud Computing, Computer Networks, Machine Learning, Cybersecurity, Cryptography

## Skills & Interests

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**Programming Languages:** Python, Java, Html/CSS, Javascript, C/C++, SQL

**Frameworks/Tools:** React, Flask, Docker, Git/GitHub, AWS, Supabase (PostgreSQL), Postman, Swagger

**Systems & Concepts:** Linux, Multithreading, Memory Management, Distributed Systems, REST APIs, CI/CD, System Design, Rate Limiting, Authentication Flows

**Interests:** Hardware & Software Technology, Personal Finance, Rock Climbing, Snowboarding, Videography

## Experience

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LockIn | *Software Engineering Intern*

May 2025 - Aug 2025

- Implemented **multi-step authentication and 2FA flows** with rate limiting and abuse mitigation, reducing unauthorized session attempts
- Architected an **asynchronous multi-stage data pipeline** integrating **6-7 external services**, coordinating scraping, AI extraction, and enrichment
- Designed **session lifecycle management and background health monitoring**, automatically detecting and cleaning revoked or invalid sessions
- Introduced **in-memory caching, structured error recovery, and rate-limit handling**, minimizing redundant API calls and improving system responsiveness

## Projects

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**Job Application Tracker SaaS (In Progress)** | *Python, FastAPI, PostgreSQL, Docker*

Jul 2025 - Present

- Architecting a **full-stack SaaS platform** supporting authenticated user accounts and persistent job application tracking
- Designing a **normalized PostgreSQL schema** supporting structured status transitions and dynamic filtering across **10+** tracked attributes
- Implementing **protected React routes and centralized state management**
- Developing an **AI-powered resume critique module and browser-based screen recording feature** using MediaRecorder API

**Pet Adoption Shelter Management System** | *Python, React, TypeScript, Docker*

Sep 2024

- Architected a **Flask REST API with 18+ endpoints**, documented using **Swagger (Flasgger)** to support adoption workflow and administrative operations
- Designed a **normalized relational schema (5 tables, foreign key constraints)** and built a modular CRUD layer with schema-based input validation
- Implemented **CI/CD with GitHub Actions** running pytest across 5 test suites and enforcing Pylint/ESLint standards
- Containerized and orchestrated frontend/backend services using **Docker Compose** within a 4-person Agile development team

**Rapid Recap Web Application** | *Python, Flask, Speech-to-text API, REST APIs, OpenAI API*

May 2023

- Architected a **media ingestion pipeline supporting 5 input formats** (YouTube links, MP4, MP3, transcript files, raw text)
- Integrated a **speech-to-text API** to convert extracted audio into structured transcripts
- Built an **AI-driven summarization layer**, reducing long-form multimedia content into concise structured outputs

## Activities

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**UConn Department of Residential Life** | *Student Facility Monitor, Resident Assistant*

Aug 2022 - Present

- Support and supervise residential communities while fostering inclusive, safe living environments
- Plan and execute educational and social events for **100+** students, increasing engagement and participation by **70%**

**Asian/Asian American Mentoring Program (AMP), UConn Chapter** | *Mentee, Mentor*

Aug 2022 - May 2023

- Provided peer mentorship and participated in structured professional development programming