Justin Lee

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EDUCATION

Boston College   Chestnut Hill, MA
Bachelor of Arts in Computer Science   *Sep. 2021 – May 2025*

EXPERIENCE

Backend Software Engineer Intern   June 2024 – Aug. 2024
Teamworks   *Durham, NC*
- Developed and deployed a **Flask-based** PDF/CSV export feature to automate itinerary downloads for **1,000+** multi-team trips for professional sports organizations, reducing manual work and enhancing operational efficiency.
- Built a scalable backend service used by **6,300+** sports teams using **Python, Flask, and GraphQL**, collaborating cross-functionally in **Agile** sprints aligned with product roadmap milestones.
- Improved backend test coverage by **10%** through test-driven development (**TDD**) and comprehensive unit-testing, increasing production stability and overall code quality.

Software Engineer Intern   June 2023 – Aug. 2023
LG Electronics   *Englewood Cliffs, NJ*
- Improved logistics accuracy by **10%** by developing a shipment validation tool with **Flask** and **Google Maps API**, reducing processing time for shipment data.
- Built **Python** scripts to integrate **MSSQL** with Airtable, **automating data synchronization** and enhancing data accessibility for **50+** sales reps across multiple teams.
- Wrote and optimized **multi-table JOIN queries** on a company-wide **MSSQL relational database**, reducing report generation time by **20%** and enabling faster access to business insights.

IT Support Technician   Jan. 2021 – May 2025
Boston College EagleTech   *Chestnut Hill, MA*
- Provided technical support for **14,000+** students/faculty, completing **200+** system rebuilds, virus removals, and OS reconfigurations on macOS and Windows.
- Diagnosed and resolved hardware/software issues, improving service response time and customer satisfaction.

PROJECTS

Content Academy | *React.js, Node.js, PostgreSQL, Redis*   Dec. 2024 – May 2025
- Led a team of **4** to architect and deploy a scalable full-stack SaaS platform for content creators, supporting **500+ active users** with real-time analytics and personalized video insights via **Instagram API** integration.
- Designed a modular **backend API architecture** using **Node.js** and **PostgreSQL**, implementing **RESTful** endpoints and **Redis caching** for better load times & scalability.
- Increased user retention by **20%** through iterative feature roll-outs, including a gamified mission and reward system, a **ranking algorithm** based on Instagram metrics, and a Discord-integrated leaderboard for community engagement.

Resolve | *Flask, Next.js, OpenAI Whisper, PostgreSQL*   Aug. 2024 – Sep. 2024
- Built a **full-stack multimodal AI** platform to analyze customer complaints from audio, text, images, and video inputs using **Flask, Next.js, and OpenAI Whisper**.
- Deployed the system on **Google Cloud Platform** using **Docker** for containerization and scalability.
- Designed and built backend API with an agentic workflow and implemented a **Retrieval-Augmented Generation (RAG) pipeline** to improve **complaint classification accuracy** and allow model to retrieve contextual user data for personalized responses.

TECHNICAL SKILLS

Languages: Python, Javascript, C++, SQL (PostgreSQL, MySQL), HTML/CSS
Frameworks: React, Node.js, Flask, TailwindCSS, Django, Next.js
Developer Tools: Git, Docker, Google Cloud Platform, Redis
Libraries: pandas, NumPy, Matplotlib, pytest(Unit Testing), SQLAlchemy