# 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*
- Automated PDF/CSV itinerary exports in Flask for **1,000+** multi-team sports trips, eliminating manual scheduling workflows and saving staff members and athletes **10+** hours weekly across NFL, NBA, and NCAA clients.
- Built core backend API endpoints & data models in Flask/GraphQL for a Facility Management system now used by **6,300+** teams to enable seamless facility referencing across calendars, messages, and booking modules.
- Boosted test coverage by **10%** through test-driven development (TDD), writing thorough unit tests & snapshot tests that increased deployment confidence and caught edge case regressions pre-release.

**Software Engineer Intern**                                         June 2023 – Aug. 2023
*LG Electronics*                                                     *Englewood Cliffs, NJ*
- Boosted logistics accuracy by **10%** by developing a Flask-based shipment validation tool that cross-referenced customer addresses using the Google Maps API, preventing delivery errors and reducing processing time for **5+** warehouse teams
- Improved data visibility for **50+** sales reps by automating real-time synchronization between MSSQL and Airtable using Python (pyodbc) and Airtable's API, streamlining data access across product and logistics teams
- Refactored complex multi-table JOIN queries on a company-wide MSSQL database, cutting report generation time by **15%** and accelerating decision-making for operations managers.

## PROJECTS

**Content Academy** | *React, Node.js, PostgreSQL*                   Dec. 2024 – May 2025
- Drove **$15K** in launch revenue and supported **500+** registered users by building and deploying a full-stack Instagram analytics platform (React, Node.js, PostgreSQL) tailored for content creators
- Increased user retention by **10%** by engineering scalable backend logic with JWT-based authentication and Whop API integration, enabling secure access control and monetization through a gamified ranking system
- Trained an AI model on top-performing Instagram videos, each with over **5M+** impressions and **100,000+** likes to identify viral patterns and generate personalized content insights that helped creators optimize for growth.

**Resolve** | *Flask, Next.js, OpenAI Whisper, PostgreSQL, Google Cloud Platform*   Aug. 2024 – Sep. 2024
- Significantly improved customer complaint classification accuracy for a fintech startup by spearheading development of a multimodal complaint analysis tool, processing **50+** daily customer complaints across audio, text, image, and video inputs.
- Reduced manual customer support requests by **25%** by integrating a Retrieval-Augmented Generation (RAG) pipeline with Langchain and a vector database, enabling customers to source and query data directly from our dashboard.
- Containerized the application with Docker and deployed on Google Cloud Platform, ensuring scalability and reliability.

**Boston College 4 Year Course Planner** | *Django, Javascript, PostgreSQL*   Feb. 2024 – May. 2024
- Enabled **9,000+** Boston College students and staff to plan courses and degrees more efficiently by building a full-stack web app with a JavaScript frontend, Django backend, and PostgreSQL for secure data management.
- Improved academic advising efficiency by **20%** through implementing role-based access controls and multi-semester planning with academic credit validation for student/admin/superuser workflows.

## TECHNICAL SKILLS

**Languages**: Python, Javascript, Typescript, C++, SQL (PostgreSQL, MySQL), HTML/CSS
**Frameworks & Libraries**: React, Node.js, Flask, Next.js, TailwindCSS, LangChain, OpenAI API, SQLAlchemy
**Developer Tools**: Git, Docker, Postman, Pytest, Pinecone, Google Cloud Platform, Redis, Kubernetes
**Key Skills**: RESTful APIs, JWT Authentication, RAG pipelines, Vector Database, Agile Development, Unit Testing