# Pratyush Sudhakar

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#### **EDUCATION**

Cornell University

Ithaca, NY

Bachelor's of Science in Computer Science | Overall GPA: 3.865 | Major GPA: 3.97

May 2025

Relevant Coursework: Adv. ML Systems, Systems Prog. (C++), Algo Analysis, Func. Prog. (OCaml), OOP (Java)

Activities: Cornell Wushu (Vice-President), Object-Oriented Programming (TA), Assoc. of CS Undergrads (Member)

## TECHNICAL SKILLS

Programming Languages: Python, Java, JavaScript/TypeScript, C++, OCaml

Frontend Frameworks (Web & Mobile): React.js, Redux.js, Next.js, Angular, Svelte, React Native, Flutter

Backend Frameworks & Databases: Node.js, Express.js, Flask, Django, Prisma (ORM), SQL, PostgreSQL, GraphQL

Cloud & DevOps: Amazon Web Services, Google Cloud Platform, Azure, GitHub Actions, Docker, Kubernetes, Nginx

#### EXPERIENCE

# Software Engineering Intern

Jun 2023 - Aug 2023

rapStudy

Los Angeles, California

- Spearheaded codebase refactoring, introducing Redux for state management and memoization for component optimization, achieving a 160% improvement in the website's speed index.
- Architected a secure song-sharing system, using React and 10+ custom Firestore rules for precise access control.
- Developed Redux-powered global audio-playback component, perfectly syncing with lyrics display for enhanced UX.

## **Data Engineering Intern**

Jun 2023 - Sep 2023

Cornell College of Engineering

Ithaca, New York

- Engineered a scalable ETL pipeline to process financial data from 3,000+ companies, utilizing Selenium (web scraping), NLP (data extraction), and multithreading, reducing processing time by 83%.
- Built a live dashboard using Next.js, Flask, and Server-Sent-Events, cutting latency by 66% with parallelization.

## Software Engineering Intern

Jun 2022 - Aug 2022

Sellpoint

Remote

- Built an inventory management app with React, Redux, and RTK Query, integrating REST API via AWS API Gateway, ECR, and DynamoDB.
- Developed real-time market analysis tool using Python data libraries, and Chart.js for trends visualization.

#### ACTIVITIES

#### Head of Engineering & President

Jan 2023 - May 2024

Cornell Perfect Match: Dating Service for Cornellians

Ithaca, New York

- Led 4 cross-functional teams through product launch, managing recruitment and onboarding.
- Enhanced UI/UX and set up automated personalized emails (cron jobs), resulting in 600+ new active users.
- Transitioned to online matching algorithm, deployed via Flask microservice, achieving 50,000+ real-time matches.
- Engineered data analytics system using Map-Reduce framework and server-side caching, delivering live instant insights to 5,000+ users.

### **Technical Product Manager**

Jan 2023 - Dec 2023

Cornell Digital Tech & Innovation

Ithaca, New York

- Spearheaded agile development of cross-platform ride scheduling app with 7-developers team.
- Architected test-driven development pipeline using Cypress, Mocha, and Supertest, attaining 94% code coverage.
- Orchestrated CI/CD workflow with GitHub Actions and Kubernetes for streamlined deployment and testing.

#### Personal Projects

Harmonious Sounds | Scikit-Learn, React, Flask, Express, Docker, Nginx

Feb 2023 - Apr 2023

Web application incorporating a Logistic Regression model to predict users' Spotify playlists' happiness levels with 88% accuracy. Leveraged Nginx for seamless load balancing and proxying between 4 microservices.

AI Syllabus Summarizer & Q&A Tool | Supabase, Zilliz, Next.js, Flask, LangChain

Feb 2024 - Apr 2024

Course syllabus query system with REST API backend, integrating Langchain for NLP and Zilliz cluster for vector similarity search, enabling efficient retrieval and context-aware responses to student queries.

Live Blog and Video Sharing Platform | Next.js 14, Apollo, GraphQL, MongoDB, Mux Apr 2024 - May 2024 Full-stack web app with a Netflix-style interface, enabling users to create and share engaging blogs and live videos.