Pratyush Sudhakar

607-279-4794 | ps2245@cornell.edu | LinkedIn | GitHub | pratyushsudhakar.com | New York, United States

EDUCATION

Cornell University   Ithaca, NY
Bachelor's of Science in Computer Science | Overall GPA: 3.865 | Major GPA: 3.97   May 2025

Relevant Coursework: Advanced Machine Learning Systems, Systems Programming (C++), Analysis of Algorithms, Functional Programming (OCaml), Object-Oriented Programming (Java), Intro to Machine Learning, Computer Vision

Activities: Cornell Wushu (Vice-President), Object-Oriented Programming (TA), Association 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: Node.js, Express.js, Flask, Django, Nest.js, FastAPI, Prisma (ORM)
Databases & Query Languages: SQL, GraphQL, MySQL, PostgreSQL, MongoDB, DynamoDB, Firebase
Cloud & DevOps: Amazon Web Services, Google Cloud Platform, Microsoft 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 and implemented a secure song-sharing system, using React and 10+ custom Firestore rules for precise access control.
- Engineered a global audio playback component using Redux, achieving seamless synchronization with the lyrics display, significantly improving UX.

Head of Engineering & President   Jan 2023 - May 2024
Cornell Perfect Match: Dating Service for Cornellians   *Ithaca, New York*
- Led 4 cross-functional teams, managing recruitment and onboarding, ensuring successful launch.
- Revamped frontend UI/UX and set up automated engagement emails (cron jobs), resulting in increased engagement and 600+ new users.
- Transitioned to online matching algorithm, deployed via Flask microservice, achieving 50,000+ real-time matches and improved responsiveness.
- Engineered real-time user analytics dashboard with MongoDB Map-Reduce for data aggregation, server response caching for reduced latency and seamless UX for 5,000+ users.

Technical Product Manager   Jan 2023 - Dec 2023
Cornell Digital Tech & Innovation   *Ithaca, New York*
- Led team of 7 developers in agile development of a cross-platform campus-wide ride scheduling app.
- Established an automated test infrastructure using Cypress, Mocha, Chai, and Supertest, achieving 94% coverage and enhancing software quality with test-driven development.
- Containerized the application platform with Docker, and orchestrated automated deployment and testing with Kubernetes cluster and GitHub Actions, facilitating CI/CD.

Data Engineering Intern   Jun 2023 - Sep 2023
Cornell College of Engineering   *Ithaca, New York*
- Engineered scalable ETL pipeline with Selenium (web scraping), NLP (data extraction), and multithreading, reducing processing time by 83% for financial data from 3,000+ companies.
- Developed real-time data preview application with Next.js and Flask, using Server-Sent-Events and parallel processing, reducing data latency by 66%.

PERSONAL PROJECTS

CleverHug Email Scheduler | *React, Flask, QStash, Tailwind*   *Apr 2024*
Full-stack web application empowering users to schedule personalized, uplifting emails to their future selves, leveraging LangChain models for optimized scheduling rules (RRULE) and QStash for robust queue management and reliable delivery.

AI Syllabus Summarizer & Q&A Tool | *Supabase, Zilliz, Next.js, Flask, LangChain*   *Feb 2024 - Mar 2024*
Web app enabling students to query syllabus content using natural language. Developed REST APIs and used Supabase for data storage and a Zilliz cluster for fast vector search of cached responses, ensuring low latency and optimized performance.

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

Harmonious Sounds | *Scikit-Learn, React, Flask, Express, Docker, Nginx*   *Apr 2023*
Microservices-based 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 four microservices.