Pratyush Sudhakar

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Education

Cornell University Ithaca, NY
Bachelor's of Science in Computer Science | Overall GPA: 3.65 December 2025
Relevant Coursework: Advanced Machine Learning, Systems Programming (C++), Analysis of Algorithms (Java), Functional Programming (OCaml), Data Structures & Obj.-Oriented Programming (Java), Computer Vision

Technical Skills

Programming Languages: Python, Java, JavaScript/TypeScript, C++, OCaml
Frontend Frameworks (Web & Mobile): CSS3, 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: Cloud-Computing Services (AWS, GCP, Azure), Docker, GitHub Actions, Kubernetes, Nginx, Shell

Experience

Computer Systems Developer, *Rizvi Lab, Cornell University* July 2024 - September 2024

- Develop a PyQt-based touchscreen GUI for BeagleBone, enabling monitoring and control of food processing equipment via secure shell connection with MobaXterm.
- Employed Linux shell scripts and cron jobs to streamline system operations and automate task management.

Software Engineering Intern, *rapStudy* June 2023 - August 2023

- Refactored codebase, introduced Redux for state management, and optimized components with memoization.
- Created 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, *Cornell College of Engineering* June 2023 - September 2023

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

Software Engineering Intern, *Sellpoint* June 2022 - August 2022

- Developed an inventory management system using Redux and RTK for efficient frontend state management.
- Implemented serverless backend communication with AWS API Gateway and Lambda functions, hosted on ECR.

Activities

Head of Engineering & President, *Perfect Match: Dating Service* January 2023 - May 2024

- Directed 4 cross-functional teams through product launch, overseeing recruitment, onboarding, and business planning.
- Enhanced UI/UX and set up automated personalized emails (cron jobs), resulting in 600+ new active users.
- Architected a cloud-based, real-time analytics platform to deliver instant survey insights to 5,000+ users by utilizing Map-Reduce for fast processing and server-side caching to reduce latency.

Technical Product Manager, *Cornell Digital Tech & Innovation* January 2023 - December 2023

- Spearheaded agile development of cross-platform ride scheduling app with a team of 7 developers.
- 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.

Ventures & Personal Projects

AI Assistant (Millennium Sponsored) | *Zilliz, Flask, NLP, Azure* March 2024 - May 2024

Devised a course syllabus assistant with Azure-hosted REST API, utilizing Langchain Models and Zilliz Cluster for vector similarity search, achieving 50ms average response time for context-aware student queries.

Content Sharing Platform | *Next.js 14, Apollo, GraphQL, MongoDB* April 2024 - May 2024

Crafted a Netflix-themed full-stack web application, empowering users to craft and broadcast blogs and live video streams.

Harmonious Sounds | *Scikit-Learn, React, Flask, Express, Docker, Nginx* February 2023 - April 2023

Engineered a web application utilizing a Logistic Regression model to predict Spotify playlist happiness levels with 88% accuracy. Optimized performance using Nginx for efficient load balancing and proxying across 4 microservices.