

Pratyush Sudhakar

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EDUCATION

Cornell University

Bachelor's in Computer Science, Mathematics | Overall GPA: 3.87 | Major GPA: 3.97

Ithaca, NY

December 2024

Relevant Coursework: Systems Programming, Analysis of Algorithms, Functional Programming & Data Structures (OCaml), Object-Oriented Programming & Data Structures (Java), Intro to Machine Learning, Computer Vision

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

EXPERIENCE

Software Engineering Intern

June 2023 - August 2023

rapStudy

Los Angeles, California

- Spearheaded codebase refactoring to Redux and memoization, boosting frontend rendering speed by 93%.
- Architected a song-sharing feature using React, Firebase, and 10+ custom Firestore rules, enhancing platform security and enabling controlled access for over 100 potential external users.
- Engineered a synchronized SongView component with lyrics using Redux, fostering seamless integration of song playback and lyrics display and securing a synchronization accuracy of 95%.

Technical Product Manager

March 2022 - Present

Cornell Design & Tech Initiative

Ithaca, New York

- Led a team of 7 in developing Cornell DTI Carriage; applied Agile methodologies and testing tools like Cypress, Mocha, Chai, and Supertest to enhance code quality and boost test coverage to 94%.
- Optimized deployment and application performance by Dockerizing the web app, automating CI/CD pipelines with GitHub Actions and Kubernetes, resulting in 90% faster deployments and testing.

Head of Engineering

January 2023 - Present

Cornell Perfect Match

Ithaca, New York

- Led development teams in crafting a high-performance Next.js/MongoDB application, accommodating 10K+ users and employing advanced SEO and responsive design to achieve a stellar 95%+ User Experience Score.
- Leveraged the Hungarian algorithm to develop an optimized matchmaking feature, yielding an estimated 30,000 matches.

Data Engineer

June 2023 - Present

Cornell College of Engineering

Ithaca, New York

- Constructed an advanced ETL pipeline using Selenium and NLP, processing financial data of 3000+ companies, resulting in an 83% decrease in processing time through parallel processing.
- Architected and deployed a full-stack application leveraging Next.js and Flask, integrating Server-Sent Events (SSE) for fast real-time data retrieval, resulting in a 66% reduction in data latency and a superior front-end user experience.

Software Developer

July 2022 - December 2022

Cornell Yang-Tan Institute

Ithaca, New York

- Crafted a flexible slug management system on the AskEarn website using PHP, Laravel, and Strapi CMS, allowing for effortless page URL modification, thereby improving the user experience for over 100,000 monthly active users.

Software Engineering Intern

June 2022 - August 2022

Sellpoint

Remote

- Implemented an inventory management CRUD application leveraging AWS services. Orchestrated requests via API Gateway, established ECR for containerized function deployments, and utilized DynamoDB for robust database management.
- Developed a real-time market analysis tool, processing data with Pandas and NumPy within Lambda functions.
- Leveraged React.js, Redux, RTK Query, and react-apex-charts for seamless data storage, retrieval, and visualization.

PROJECTS

Harmonious Sounds | *React, Flask, Express, Docker, Nginx* | April 2023

Formulated a microservices-based web app incorporating a Logistic Regression model for playlist happiness prediction with 88% accuracy. Employed Nginx for seamless service interaction, utilized Okteto for deployment, and established automated DevOps pipelines with GitHub Actions, resulting in a 90% faster deployment.

Cornell Wushu Club Website | *React, AWS S3, MongoDB, Flask* | July 2022 - August 2022

Spearheaded React development, introduced internal tooling for automated emails, and fortified member management using Flask and JWT. Leveraged React Quill and AWS S3 to boost text area functionality and image storage respectively.

CaseOwl India | *React, Redux, AWS S3, AWS API Gateway, AWS Cognito, AWS Lambdas* | July 2022 - August 2022

Built a files and tasks management web application for lawyers in India using React.js and the Redux state management toolkit.

TECHNICAL SKILLS

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

Tools/Frameworks/Databases: Kubernetes, Grafana, AWS, Jira, Django, Flask, React.js, Redux.js, Next.js, Node.js, Flutter, Express.js, React-Native, Expo, MySQL, DynamoDB, MongoDB, GraphQL, Prisma, Google Cloud Platform, AWS Amplify, AWS EC2, Redis

Machine Learning: TensorFlow, MediaPipe, NumPy, Pandas, Neural Networks, Sklearn, Pomegranate, Scikit-learn, OpenCV