Pratyush Sudhakar

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Education

Cornell University Ithaca, NY
Bachelor of Science in Computer Science, Mathematics Expected Dec 2024
CS Major GPA: 4.0/4.0 • Math Major GPA: 4.0/4.0

Relevant Coursework: Systems Programming, Intro to Analysis of Algorithms, Intro to Machine Learning, Functional Programming, Computer Vision, Object-Oriented Programming & Data Structures (Java), Applicable Algebra, Discrete Structures, Multivariable Calculus, Linear Algebra, Basic Probability

Work Experience

Technical Product Manager March 2022 - Present
Cornell Design & Tech Initiative Ithaca, NY

- Led the ongoing development for a successful launch of the Cornell DTI Carriage, leveraging **agile development methodologies** and a comprehensive project roadmap to effectively mitigate all client and stakeholder concerns.
- Significantly improved overall code quality and reduced time-to-market by establishing a **robust testing infrastructure** using **React-testing-library** and **Mocha, Chai**, resulting in an **80% increase in test coverage** across the application.
- Streamlined the deployment process by **Dockerizing** the web application and **automating** the entire **CI/CD process**, resulting in a **75% reduction in manual effort** and significantly improving application reliability.

Software Engineering Intern June 2022 - August 2022
Sellpoint Remote

- Implemented and updated React.js (with Redux) frontend and AWS backend features for a web application, **reducing latency** and **improving modularity** through **Parallel API calls** and configuring Google Ads.
- Developed real-time, cost-efficient market analysis tools using data from APIs/scrapers and processed data using pandas in Python lambdas. Utilized **react-apex-charts** library to improve visualization of the data, resulting in a **40% increase** in data processing speed and enabling more accurate and timely decision-making.
- Single-handedly developed a backend for a CRUD application to maintain an online inventory for multiple users, leveraging **Elastic Container Registry** to store heavy-dependency lambda functions and ensuring **secure and reliable access** to the system.

Software Engineer December 2022 - Present
Cornell Perfect Match Ithaca, NY

- Implemented a Next.js web application using TypeScript, and MongoDB with **advanced SEO techniques** resulting in a consistent **100% Vercel Real-Time User Experience** score and the ability to handle **over 10,000 users** at a time.
- Developed **complex optimization algorithm** to improve the Perfect Match matchmaking platform's match generation.
- Collaborated with a cross-functional development team to **reduce deployment times**, enhance **code readability**, and maintain **server stability** with **fast response times** under pressure.

Software Engineer July 2022 - Dec 2022
Yang-Tan Institute Ithaca, NY

- As a software developer at AskEarn Project, contributed to the platform's development by implementing production-ready features using **PHP, Laravel, Docker, MySQL, Redis, and Strapi**,
- Redesigned the database schema and frontend to enable dynamic slug functionality for SEO purposes.

Projects

Cornell Wushu Club Website: July 2022

Lead the redesign and rebuild of the Cornell Wushu Club website using React and AWS Amplify, including real-time data synchronization.

CaseOwl: 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, with a serverless AWS backend: AWS Lambdas, API Gateway, DynamoDB, Cognito

Technical Skills

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

Tools/Frameworks: Git, AWS, Jira, Django, Flask, React.js, Redux.js, Next.js, Node.js, Flutter, Express, React Native, Expo

DevOps/Database: MySQL, DynamoDB, MongoDB, GraphQL, Prisma, Google Cloud Platform, AWS Amplify, AWS EC2, Docker, Redis

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