

SAATVIK NAGPAL

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EDUCATION

University of Southern California, Los Angeles, CA **GPA: 4.0**
Master of Science in Computer Science Jan 2024 - May 2025
Relevant Courses - Foundations of AI, Web Technologies

Northeastern University, Boston, MA **GPA: 4.0**
Master of Science in Computer Software Engineering [Transferred] Sep 2023 - Dec 2023
Relevant Courses - Program Structures and Algorithms, Object Oriented Design using Java

Guru Gobind Singh Indraprastha University, New Delhi, India **GPA: 9.29**
Bachelor of Technology in Computer Science Aug 2019 - July 2023
Relevant Courses - Data Structures, DBMS, Object Oriented Programming, Operating Systems, Computer Networks

TECHNICAL SKILLS

Languages: Java, Python, C++, JavaScript

Databases: MongoDB, SQL, PostgreSQL, DBMS/RDBMS, Firebase, Supabase

Web Technologies: HTML, CSS /Tailwind CSS, React.js, Next.js, TypeScript, Express.js, Node.js, GraphQL, PHP

Cloud Technologies: Google Cloud Platform, AWS

Frameworks: Flask, Spring, Swing, Android

Tools and Technologies: Microservices, Linux, Jira, Jenkins, Git, Postman, Docker, Agile, Figma

WORK EXPERIENCE

Software Developer Intern | Desi QnA, Remote Apr 2023 - Aug 2023

- Spearheaded the upgrade of Desi QnA to a **Progressive Web App (PWA)**, enhancing load times and offline performance, leading to a **60%** increase in user retention
- Implemented **blockchain**-based authentication with **Ethereum smart contracts**, slashing unauthorized access by **75%**
- Introduced **OAuth 2.0** and **JWT** for **API** security, boosting data protection and user session integrity by **70%**.
- Improved site security by **70%** by integrating **Google reCAPTCHA** in **PHP** and **JavaScript**, with automated deployment updates via **AWS CodePipeline**.

Frontend Developer Intern | TGH Technologies, Remote May 2022 - Aug 2022

- Elevated user engagement by **30%** for **The Social Town (TST)** through implementation of a dynamic user interface leveraging **React.js** and **Redux Toolkit** for seamless state management across multiple pages
- Initiated creation of an advanced admin dashboard for a movie stock market application, incorporating **Chart.js** visualizations, resulting in a substantial **30%** surge in user acquisition through improved data analysis capabilities
- Revamped **Boring Bots'** user interface, leading to a **25%** reduction in customer support inquiries and a **20%** enhancement in user satisfaction

ACADEMIC PROJECTS

OptiMaze | Java, Spring Boot, React.js, JUnit, Material UI GitHub

- Engineered a maze-solving game, integrating dynamic maze generation and optimal pathfinding algorithms with **Java** and **Spring Boot**, validated through comprehensive testing with **JUnit** to ensure reliability and functionality
- Developed the game's frontend with **React.js**, creating a responsive and intuitive user interface for enhanced player interaction
- Authored detailed API documentation with **Swagger**, facilitating seamless backend integration and effective development team collaboration

VidLounge | React.js, Tailwind CSS, Node.js, Express.js, MongoDB GitHub

- Launched a full stack video platform, serving **10+** users, driving engagement through interactive features, and enabling user-generated content with a **50MB** file limit
- Devised a mobile-responsive UI, cut load times by **30%** using **Cloudinary** for video storage, ensuring an exceptional user experience for a growing user base

Devshowcase | Next.js, MongoDB, Tailwind CSS, Cloudinary GitHub

- Led a portfolio crafting web app within a three-person team, incorporating **Google Auth** and **JSON Web Tokens** for robust user authentication, ensuring secure user profile management and seamless photo uploading
- Designed and developed **REST APIs**, resulting in a 30% increase in user-generated projects and heightened engagement through features such as liking and commenting on projects