Shreyas Kumar

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Education

National Institute of Technology, Rourkela

September 2023 - Present

Bachelor of Technology in Electronics and Communication Engineering (CGPA - 8.41)

Rourkela, Odisha

Ryan International School, Raipur

May 2023

AISCCE - CBSE, Science (PCM) (Percentage - 88%)

Raipur, Chhattisgarh

St. Xavier's High School, Raipur

May 2021

CISCE - ICSE (Percentage - 89%)

Raipur, Chhattisgarh

Relevant Coursework

• Data Structures and Algorithm

- Object Oriented Programming
- Operating System

- Database Management
- Design and Analysis of Algorithms

Projects

6502 processor Emulator for Nintendo Entertainment System (NES)

December 2024

GitHub

Go

- Designed and implemented a 6502 CPU emulator for the NES using Go, replicating the original architecture and instruction set.
- Enhanced program fidelity by implementing 256 instructions using a basic approach, avoiding the use of external dependencies.

SimpliBlog June 2024 – January 2025

Svelte / SvelteKit, NGINX, Shadon-Svelte, Node.js, Mongoose, Tailwind

GitHub simpliblog.site

- Developed a blogging and networking platform for NIT Rourkela students, featuring Markdown-based content creation, categorization, and a sleek, minimalist user interface.
- Integrated a fuzzy search API with MongoDB to enable effective topic-based searching across 100+ Markdown blogs, enhancing user engagement by facilitating seamless access to tutorials and guidance content.
- Architected a scalable backend using Node.js to support seamless user interactions, secure authentication, and efficient data processing.
- Deployed the application on a VPS with NGINX for optimized performance, incorporating rate limiting to handle up to 10,000 requests per minute, enhancing security, preventing abuse, and ensuring a reliable user experience.

RiskEve October 2024

Javascript, Python, FlaskAPI, Scikit-Learn, Pandas, NumPy

GitHub Documentation Website

- Engineered an advanced machine learning algorithm that analyzed transaction data, enabling quicker resolutions of flagged transactions across the payment processing system.
- Analyzed factors such as the time between concurrent transactions and the distance between transaction locations for the same IP address to train a machine learning model.
- Achieved up to 99.5% accuracy in fraud detection and designed the solution to act as an effective backend middleware service for detecting fraudulent payments in real-time.

Achievements/Certifications

• Samagam 2024 Winner

January 2024

Secured 1st position in the Samagam Intrauniversity Hackathon by delivering an innovative solution within a 7-day period.

LinkedIn Post

Technical Skills

- Languages: Go, Kotlin, Javascript, C, Java
- Operating Systems: Windows, Linux
- Developer Tools: Docker, Git, GitHub Actions, Posting CLI, WinSCP, VS Code, IntelliJ Idea
- Technologies/Frameworks: Svelte, Express, NGINX, Ebitengine, BubbleTea, Tailwind

Extracurricular Activities

Drill N Bass

Member

September 2024 – Present

NIT Rourkela

- Performed at major NIT Rourkela events such as Roots 2024, Cosmopolitan 2024, and Innovision 2024.
- Managed practice schedules and performance logistics, ensuring seamless coordination during events.