AMAN SINGH

EXPERIENCE

Graviti (ISUA Solutions Pvt. Ltd.)

Aug '24 - Present

Software Engineer Intern

Mumbai, India

- Implemented automated order processing, vehicle dispatch logic in backend using NestJS CQRS.
- Developed custom UI components using AntD and styled-components, creating consistent and flexible design in NextJS
- Optimized Ag-Grid integration for managing bulk data entries through CSV files, enhancing load times by 20%.

Ramanujan Universe

June '24 – July' 24

High Performance Computing Research Intern

Remote, India

- Implemented **OpenMPI** based parallel algorithms to boost computational efficiency by **40**% in HPC environments.
- Conducted comprehensive performance analysis and benchmarking of HPC systems using MPIP and Scalasca.
- Developed machine learning pipelines optimized for HPC, accelerating data-driven research projects.

Knit Nov

Software Engineer Intern

Nov '23 – July' 24 Bengaluru, India

- Built a scalable e-commerce platform featuring an admin interface with real-time data visualisations and insights.
- Designed the Core components including **GraphQL APIs** and implemented **CI/CD** pipelines.
- Developed a **Redis caching** layer, reducing database load by **30%** and improving page load times by **40%**.
- Integrated a payment gateway with real-time webhook updates, reducing transaction failure rates by 15%.

TECHNICAL SKILLS

Languages: C/C++, Java, Python, JavaScript, SQL, Golang

Libraries/ Frameworks: ReactJS, NextJS, Redux, NodeJS, ExpressJS, Scikit-Learn, Tensorflow Tools/ Platforms: Drizzle ORM, Heroku, AWS, Git, GitHub, Docker, CI/CD, Firebase, Selenium

Databases/ APIs: MySQL, PostgreSQL, MongoDB, Redis, REST, GraphQL

ACADEMIC AND PERSONAL PROJECTS

Harvest Hive | TypeScript, NextJS, MongoDB, AWS | Github | Live

March 2024

- Developed an bidding based marketplace for farmers to sell crops at fair market value to vendors according to their bids.
- Leveraged NextJS in a monorepo integrating both frontend, backend with Typescript.
- Utilized MongoDB and AWS S3, deployed on Vercel, with a CI/CD pipeline.

PHOENIX | Python, Scipy, Advanced Algebra | GitHub

Sept 2023

- Designed and implemented a lattice-based encryption algorithm, based on NTRU cryptosystem.
- Utilized **cprofile** and **hyperfine** for code profiling and benchmarking.
- Prototyped algorithm logic in Python for rapid validation and testing.

NewsPulse | NodeJS, ReactJS, REST API | Github | Live

March 2022

- Developed a web application that dynamically aggregates trending news headlines from diverse categories.
- Integrated gnews API for the data and deployed the application on Vercel with CI/CD automation

EDUCATION

Jaypee University of Engineering and Technology

July '21 - June '25

Bachelor's of Technology in Computer Science

Guna, MP, India

POSITIONS OF RESPONSIBILITY

Google Developer Student Club JUET

Aug '21 – May '23 Guna, MP, India

Development Lead

• Led the Development Wing at GDSC JUET and mentored 100+ students in the club.

• Facilitated workshops and seminars to enhance technical skills and foster a culture of innovation among members.

ACADEMIC ACHIEVEMENTS & EXTRA-CURRICULAR

- Won Inter-School programming Contest Excella in 2018.
- Ranked 2nd in a local Hackathon among 30+ teams in 2019.
- Authored and published technical blog posts at iamv1n.hashnode.dev.
- Active Contributor at MindsDB, Meshery and many more Open Source Projects.