

# Anirudh S Kumar

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## EDUCATION

<b>Indraprastha Institute of Information Technology, Delhi (IIITD)</b> <i>B.Tech in Computer Science with Artificial Intelligence</i>	06/25 GPA: 8.72/10
<b>Sardar Patel Vidyalaya</b> <i>CBSE Class 12</i>	06/21 Percentage: 97/100

## SKILLS/COURSEWORK

**Languages:** C/C++, Java, SQL, Python, HTML/CSS, JavaScript/TypeScript, LaTeX  
**Tools:** Unix Shell, Linux, Git/GitHub, GitHub Actions, VS Code, AWS, GCP, CloudAnix, MySQL, MongoDB  
**Frameworks:** HCLib, Argobots, Svelte, SvelteKit, TailwindCSS, Selenium, FastAPI  
**Libraries:** gRPC, Pandas, NumPy, Matplotlib, sklearn, boto3, LibGDX, Arcade, Pygame,  
**Courses:** Parallel Runtimes for Modern Processors, Distributed Systems, Networks and System Security, Machine Learning, Computer Networks, Data Structures and Algorithms, Operating Systems, Database Management Systems, Algorithm Design and Analysis, Object-oriented Programming

## EXPERIENCE

<b>Backend Intern</b>   <i>Ripik.Ai</i> <ul style="list-style-type: none"><li>Created Cybsecurity Documentation for company related to SQL Injection</li><li>Discovered 4 unauthenticated endpoints with unsanitized input</li><li>Resolved 4 critical misconfigurations in AWS</li><li>Helped setup data pipelines for various products</li><li><b>Skills used:</b> Python, AWS, Cloudanix(CNAPP)</li></ul>	05/24 – 07/24
<b>Undergraduate Researcher</b>   <i>Network and Security Lab, IIITD</i> <ul style="list-style-type: none"><li>Advisor: Dr. Sambuddho Chakravarty</li><li>Working in a team to utilize games as a medium for doing Real-Time Covert Communication (VoIP Calls)</li><li>Devising methods for talking without the adversary being able to detect that they are communicating.</li><li>Created various programs for embedding high quality data at low latency(&lt;20ms) over the game server</li><li>Implemented Custom Real-Time encoders and decoders for Lyra codec.</li><li><b>Skills used:</b> C/C++, Low level programming, Operating Systems, Computer Networks</li></ul>	05/23 – Present

## PROJECTS

<b>Parallel Runtimes</b>   <i>C/C++, HCLib, Argobots</i> <ul style="list-style-type: none"><li>Implemented 4 parallel runtimes, optimized for performance and energy efficiency</li><li>Made a custom work-stealing parallel runtime using Argobots as backend</li><li>Achieved speedup over baseline by as much as 30%</li></ul>	01/24 – 04/24
<b>Distributed Systems</b>   <i>Python, Docker, gRPC</i> <ul style="list-style-type: none"><li>Implemented Raft Algorithm with 1 leader node and 4 follower nodes</li><li>Added leader lease on top of standard Raft algorithm for linearizable reads</li><li>Created a K-mean clustering algorithm using MapReduce algorithm, able to handle n-dimensional points with varying number of mappers and reducers</li></ul>	01/24 – 04/24
<b>DrugVeda</b>   <i>TypeScript, HTML/CSS, Svelte, SvelteKit, Selenium, FastAPI, TailwindCSS, Firebase</i> <ul style="list-style-type: none"><li>Created a complete end-to-end online pharmaceutical store website, which allowed users to authenticate, view all the items available, add items to their cart, and complete the checkout</li><li>Designed the frontend using Svelte, SvelteKit and TypeScript with Styling done using TailwindCSS</li><li>Devised the backend as a FastAPI server hosted on a Linode Virtual Machine with less than 100ms latency, with Firebase for Authentication</li><li>Hosted a MySQL database with more than 10K entries, allowing for independent development of the frontend and backend</li></ul>	01/23 – 04/23

## POSTIONS OF RESPONSIBILITY

<b>Coordinator</b>   <i>d4rkc0de and OWASP IIITD Student Chapter</i> <ul style="list-style-type: none"><li>Cybersecurity Club of the College, Achieved AIR 6 on CTFtime for CTF(Capture the Flag) in 2023</li><li>Head of the OWASP Foundation's Student chapter at IIITD</li><li>Participated in various CTFs and conducted a yearly international CTF with more than 400 teams participating</li><li>Represented OWASP IIITD at NITKKR to present a talk on Introduction to CTFs to 50 students along with a CTF</li></ul>	03/23 – 05/24
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