

Ayush Dutta

Computer Science Engineering , Undergrad

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Work Experience

SkyGad Pvt. Ltd.

Aug 2024 - Present

Product Security Intern

- **Designed and Developed** a platform for an **Ai Chatbot for mental health** using **FastAPI**
- **Testing** products for **APIs** and **LLM vulnerabilities** using **Burp-Suite**, performed code reviews and optimised code-base

BITS Pilani Hyderabad Campus

Jun 2024 - Present

Summer Research intern

- Pioneered research on **networking algorithms** for wireless crowd charging of devices in Internet Of Things.
- Led efforts at the generating **benchmarks** for various network algorithms.

Projects

Adamantium: Ai-powered Malware Analysis as a Service | *FastAPI, Docker, Radare2, NextJS*

[Project Link](#)

- **Malware Analysis & Reverse Engineering framework** that helps in **automating static analysis** of malicious binaries and generate reports consisting of their explanations, and in-depth analysis
- **Showcased** project at campus-wide **TECHPRENEUR EXPO** to peers, professors, and businessmen

Rootblast: Shellcode injection malware | *Visual C++, Metasploit framework*

[Project Link](#)

- **Designed and developed** a script with Visual C++ compiler that can **spawn remote shells** in target machines.
- **Evades detection** by **74 anti-malware products** on **VirusTotal**.

Dialga: Reverse-engineered Git, with improvements | *Rust, Shell, ViteJS*

[Project Link](#)

- Designed and developed a **Version Control System** from scratch, capable of features like snapshotting, and reverting back commits.
- **Documented and deployed** setup instructions through ViteJS.

Streeshield: Media-Tracer and Deepfake Detector | *React, FastAPI, Docker, MongoDB, Tensorflow*

[Project Link](#)

- Convolutional Neural Network based **full-stack application to detect morphed, face-swapped images**.
- **Designed the backend system** involving routing, connecting external APIs, intergating deep-learning models, containerising and deploying app to web

Technical Skills

Programming Languages

C, C++, Python, Rust, Bash, Javascript, Lua

Frameworks & Libraries

Matplotlib, Shuttle, Actix, FastAPI, Flask, Sci-kit learn, Numpy, Pandas

Databases

MySQL, PostgreSQL, SQLite

Reverse Engineering & Tools

Ghidra, x64/32DBG, REMnux, FlareVM, Burp-Suite, Metasploit, Nmap

Automation and DevOps:

Git, Github, Docker, Github Actions

Programming tools:

Utilizing Linux as the underlying operating system through Neovim & PopOS

Achievements

- **Secured Honorary Mentions in "9 hacks" hackathon**
- Selected in **SIH internal hackathons** in 2023, 2024.
- **Cracked** over 20+ binaries through reverse engineering
- **Reported LLM vulnerabilities** for two search engines
- Member at **Next Tech Lab**: India's first student-run multidisciplinary undergraduate lab for innovation and research across domains in AR/VR/XR, Blockchain, Ai/ML, Cybersecurity, etc.

Education

SRM University, Andhra Pradesh

Aug 2023 - Aug 2027

B.Tech in Computer Science and Engineering (CyberSecurity Specialisation)

Volunteering

- **Co-Lead of Founding team** for Google Developer Groups On Campus (previously Google Developer Student Clubs) for SRM University Andhra Pradesh. Managing core team structuring, functionality and supervising all activities related to it both on-campus and online.
- **4X Speaker on seminars averaging 150+ attendees**, in Google Developer Student Clubs, Indian Institute of Technology, Chennai
- **Founder & Mentor** of an **Independent Linux Community** grown from scratch to a 450+ in 4 months
- **Grew** LinkedIn followers to 1000+ in a matter of **6 months** by **producing content** on cybersecurity and computer science