

Shiva Shashank Kusuma

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Education

University of Alabama

Master's in **Computer Science** – 3.5/ 4.0 CGPA

Huntsville, AL

Expected: **May 2024**

SR Engineering College

Bachelor's in **Computer Science** – 3.15/ 4.0 CGPA

India

Aug 2016 – Nov 2020

Technical Skills

Languages: Python, HTML/CSS, JavaScript, SQL (MYSQL), Assembly Language (x86)

Technologies/Frameworks: React, Next.js, Node.js, Flutter, Tailwind CSS, Blockchain/Web3

Developer Tools: Git/GitHub, Bash, Windows, Linux, MacOS, VS Code, AWS, Firebase

Others: Reverse Engineering, Malware Analysis, Software Exploitation, ROP (code-reuse attacks)

Experience

Graduate Assistant

Aug 2022 – Dec 2023

University of Alabama

Huntsville, AL

- **Co-authored** a research paper and submitted a novel exploit to Exploit-DB within a 12-month period
- Worked closely with a professor in the lab to create ROP Rocket and presented it as a **co-speaker** at Defcon 2023 [info: [link](#)]
- Mastered ASM, deepening understanding of core computer operations and enhancing optimization capabilities
- Identified and addressed software vulnerabilities using reverse engineering and malware analysis for robust code
- Acquired a strong foundation in computer security, enhancing problem-solving skills for complex software challenges

Mobile Application Developer Intern

May 2020

UrbanRider

Hyderabad, India

- Learned and developed cross-platform applications using Flutter Framework within a week
- Built UrbanRider manager app using Flutter/Dart for Front-end, Firebase for Back-end
- Maintained the codebase single-handedly while integrating the new features into the app in real-time

Projects

Geekyboy | Technologies: Java, Android Studio, WordPress, Firebase

Nov 2017 – April 2019

- Tech related Android app (**50k+** Downloads), Website (**100k+** Stats), **150** Rank in Google Play Store.
- Researched and Implemented ASO gaining huge traffic (2k+ downloads/day) with an average **4.7/5**-star.

Decentralized Chat DApp | Technologies: Blockchain/Web3, React.js, gun.js

April 2022

- Built a decentralized chat app that can handle **1000's** of mgs/sec, scales around the world with free of cost.
- The data and infrastructure are not controlled by a centralized authority like AWS/Azure/GCP.

Achievements

- Co-speaker at **DEF CON** official talk - 2023
- Won 4th prize in 48-hour WittyFeed coding hackathon

Certifications

Responsive Web Design – JavaScript

FreeCodeCamp

Data Structures and Algorithms – Python

NPTEL

Publications

Co-authored 'Advanced ROP Framework' on exploit development techniques, presented at DEF CON 31, 2023. [[Paper](#)]