Rahul

+91 9729648677 | bangarrahul.b@gmail.com | Tamil Nadu, India

EDUCATION

National Institute of Technology, Tiruchirappalli
Bachelor of Technology
Computer Science & Engineering   **Jul 2020 – Jul 2024**

EXPERIENCE

Accenture
Advanced App Engineering Analyst   **June 2023 – July 2023**

- Worked on a project focused on identifying and addressing **security vulnerabilities** in **SAP** systems.
- Detected numerous vulnerabilities and suggested optimal strategies for their mitigation.

HACKATHONS

TransfiNITTe – Intra NITT Hackathon   **Nov 2023**

- Ranked **2nd** among almost 100 teams by crafting a **Llama-2** based chatbot that bridges the communication gap between engineering and customer support teams in startups.
- Developed a backend system incorporating **GitHub webhook** integration to facilitate continuous data scraping of various repository components such as issues, comments, and release notes.

PROJECTS

MPQUAD (Multipath Quad Protocol)   **Nov 2022**

- Designed **MPQuad**, an innovative protocol tailored for **multi-path** communication within **TCP**.
- The experimental analysis showcased increased throughput and reduced queuing delays.
- Presented project findings at **3rd International Conference on Advances in Computing, Communication, Embedded and Secure Systems (ACCESS) in 2023**, highlighting the protocol's potential for improving network efficiency and reliability.
- Published research paper on MPQuad in **IEEE**, contributing to academic discourse in the field.

Mini C Compiler   **Apr 2023**

- Simulation of the **front-end** and **back-end** phase of a **C Compiler** involving the If-Else, While and nested If-Else-While constructs.
- This includes **SIX phases** of a compiler.
- Gained a deeper understanding of the compiler's operation and its ability to translate high-level code into executable machine instructions.

Utilizing Blockchain for decentralized IoT Authentication   **Jan 2024 - Apr 2024**

- Deployed custom chaincode to establish authentication protocols within the **Hyperledger Fabric network**.
- Implemented the chaincode logic in **Golang**, comprising **CRUDE** functionality of devices.
- Created the **backend server** using **Gin**, a lightweight web framework in Golang.
    - It facilitates seamless communication between the user interface and the Hyperledger Fabric for efficient handling of HTTP requests and responses, enhancing the overall performance and scalability of the system.
- Applied a robust authentication mechanism allowing authorized devices to interact with the network securely. Remarkably reduced authentication delay from **14 seconds to 2-3 seconds**.
- Integrated **Hyperledger Explorer** as an interface between the blockchain network and the administrative users.
    - This allowed administrators to visualize and interact with the blockchain data in a user-friendly manner, enhancing transparency and accessibility.
- Integrated the chaincode and backend server components, conducting thorough testing to ensure the reliability, security, and scalability of the system.

SKILLS

Languages: C, C++, JavaScript, Python, Go, Dart, HTML, CSS

Frameworks: Gin, Flutter

Database: MySQL

Other: Data Structure, Algorithms, Git, SAP

Miscellaneous: Bash, LaTeX