

# BHANUDEEP SIMHADRI

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## EDUCATION

**Jawaharlal Nehru Technological University Hyderabad**

**2018-2022**

Bachelor's in Computer Science and Engineering

## TECHNICAL SKILLS

**Programming Languages:** Python, C, C++, C#, JAVA, JavaScript, HTML, CSS

**Frameworks and Databases:** Flask, Spring Boot, Django, ASP.NET, MySQL, MongoDB, Selenium

**Tools:** Git, Visual Studio Code, AWS, RapidMiner

**Embedded System:** Raspberry Pi, Arduino

## WORK EXPERIENCE

**Software Developer Intern**, CloudQA, Hyderabad, IN

**Sep 2021 – Feb 2022**

- Developed UI features in alignment with the specifications provided by the UI designers' team, employing ASP.NET, HTML, and JavaScript while adhering to established design principles.
- Fostered close collaboration with UI designers and fellow developers to uphold the standards of quality and usability across all UI features, ensuring consistency and user satisfaction throughout the development process.
- Established a library of reusable functions and components to enhance maintainability and streamline development efforts, minimizing code duplication and promoting efficiency in future projects.
- Engaged in cross-functional collaboration, facilitating the seamless integration of automated actions within the browser through the development of browser extensions.

**Software Engineer Intern**, NMREC college, Hyderabad, IN

**Oct 2020 – Mar 2021**

- Conducted rapid prototyping of an IoT-enabled device tailored for capturing attendance through face recognition, achieving a substantial performance enhancement by reducing computational times, thus boosting efficiency by 88%.
- Implemented an advanced spoof detection technique within the prototype to validate the authenticity of facial recognition data, ensuring the integrity of attendance records and mitigating potential security risks.
- Seamlessly integrated client-server architecture into the prototype utilizing socket programming, facilitating efficient packet transfer between a Raspberry Pi client and a PC server.
- Further refined the solution by optimizing the code specifically for ARM device, enhancing performance and resource utilization on embedded systems like Raspberry Pi. This optimization paved the way for standalone prototyping, enabling all processing tasks to be executed directly on the device, eliminating the dependency on a separate PC server.

## PROJECTS

**FaceFusion** Python, Flask, Mongo dB

[Source code](#)

**2020**

- Developed the entire backend infrastructure for an attendance management application leveraging face recognition API technology.
- Utilized the Flask framework, a lightweight and flexible Python web framework, to construct the backend components.
- Took responsibility for routing APIs within the Flask application, ensuring efficient communication between the frontend and backend.
- Bundled the application with all necessary dependencies, streamlining deployment and scalability.
- Aligned development efforts with state government mandates for implementing biometric attendance systems, ensuring regulatory compliance, and successfully deploying the application to enhance attendance management through modern biometric technologies..

**NetForge** JAVA, Mininet, hping3, iperf

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**2022**

- Implementation of a robust SDN network using Mininet, meticulously engineered to emulate complex network topologies within a Linux environment.
- Execution of comprehensive network traffic simulations, leveraging industry-standard tools such as iperf for regular traffic patterns and hping3 for the generation of DDoS network packets.
- These simulations were instrumental in assessing the performance and resilience of the SDN architecture under varying load conditions.
- Seamless integration of network monitoring capabilities into the SDN environment through the utilization of the Ryu controller framework. This enabled the systematic collection and analysis of network logs encompassing both normal traffic and DDoS attack scenarios.

**PolicyParser** Python, Transformers, NLP

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**2023**

- Designed and implemented backend APIs for processing textual data.
- Conducted thorough evaluation of the model's performance by integrating precision, recall, F1 score, and rogue score calculations into the backend APIs, achieving an accuracy rate of 94%.
- Developed automated processes within the backend to extract regulatory policies related to UAVs and drones from official FAA documents.