Shaik Jani Basha
Undergraduate
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EDUCATION

Degree	Specialization	Institute	Year	CPI
B.Tech	*Electrical and Electronics Engineering*	KL University	2019-2023	8.03
MPC	*Physics, Chemistry, & Mathematics*	Sri Chaitanya junior College	2019	9.67
SSC	-	ZPHS Govt School	2017	8.5

WORK EXPERIENCE

- **Embedded C Intern** *[KPIT Technologies]* *jan-Apr 2023*
  - Gained hands-on experience in **Embedded Systems and Embedded C,** focusing on real-world applications.
  - Acquired proficiency in **C programming** for embedded environments.
  - Gained a comprehensive understanding of **AUTOSAR (Automotive Open System Architecture)** principles and development practices.
  - Contributed to projects involving **Advanced Driver Assistance Systems (ADAS),** enhancing knowledge of safety-critical automotive technologies.
- **Junior Research Fellow** *[TiHAN IIT HYDERABAD]* *Aug-Current*
  - **Autonomous Systems Development:** Designed and implemented navigation systems for **drones and ground vehicles** using robotics, computer vision, and sensor fusion, supporting defense applications **with DRDO and the Indian Army.**
  - **AI and ML for Defense:** Enhanced object detection, path planning, and decision-making for unmanned vehicles with **advanced AI and machine learning** techniques in hazardous environments.
  - **R&D Leadership:** Researched driverless vehicles and autonomous drones, focusing on **real-time tracking, precision control, and system integration for military use.**

PROJECTS

- **AI-Driven Edge Computing for Real-Time Person Detection** *[TiHAN IIT Hyderabad]* *Sep-Dec 2023*
  - Designed a **real-time person detection** system using **YOLO models** with live video streamed from a Microprocessor on a drone.
  - Applied advanced **AI/ML techniques** to enhance detection accuracy, enabling reliable autonomous **surveillance and monitoring.**
  - Leveraged **edge computing** for on-device processing, **minimizing latency** and ensuring rapid decision-making during flight operations.
  - Optimized the system for **low-latency**, **high-performance execution**, improving adaptability in dynamic environments.
- **Leader-Follower Drone System with Firebase Integration** *[TiHAN IIT Hyderabad]* *Jan-Aug 2023*
  - Developed a system where the leader drone is controlled via **a web interface** using **Python, HTML, CSS, and JavaScript,** with commands for takeoff, destination, and Return to Launch (RTL).
  - Used **Firebase Realtime Database** to send commands and share real-time location updates between the leader drone and the **web interface.**
  - Enabled the follower drone to autonomously track the leader by receiving location data, ensuring synchronized flight.
  - Ensured reliable communication and low-latency data updates through Firebase.
- **Heavy Payload Drone Development (60 kg & 100 kg)** *Jan 2023-Feb 2024*
  - Led the design, development, and testing of India's first drones capable of **carrying 60 kg and 100 kg payloads**.
  - Conducted thorough testing in **Position Hold** and **Waypoint Navigation modes** to ensure stability, reliability, and performance.
  - Successfully optimized the drone systems for **heavy payload** transportation at **TiHAN, IIT Hyderabad.**

EXTRA-CURRICULAR ACHIEVEMENTS/ACTIVITIES

- Secured a **Gold Medal in the Baseball Game** In the **District level** out of 20+ teams in 2015
- **Captained a team** in the **Cricket University League** 2022 and bagged **runners-up position out of eight teams**

TECHNICAL SKILLS

- **Languages:** Python, C, C++, java, MySQL
- **Tools:** Jupiter Notebook, LaTeX, VS Code, GitHub, Docker, VMware,Postman, Firebase, AWS