Kukkala Jayanth Kumar

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CAREER OBJECTIVE:

Looking forward to a challenging position that helps in broadening and enhancing my current skills and knowledge towards achieving organizational goals.

ACADEMIC PROJECTS:

Automated Pulmonary Nodule Classification and Detection using Deep Residual Network

- Developed a deep learning-based system using ResNet50, ResNet101, and ResNet152 for automated detection and classification of pulmonary nodules in lung CT scan images.
- Applied transfer learning and data augmentation techniques to enhance model accuracy and generalization for reliable medical image analysis.
- Achieved 94.8% classification accuracy with ResNet152 and validated the system using metrics like precision, recall, F1-score, and
- ROC curve analysis.

Smart Election Monitoring System using Lab-View with Real-Time Biometric Integration

- The system combines RFID-based voter ID scanning with fingerprint biometric verification. This ensures that even if someone possesses another person's RFID card, they cannot vote without matching their fingerprint, thereby strengthening election security.
- Using LabVIEW as the central platform, the system performs live monitoring of voter authentication, vote casting, and result counting, ensuring transparency, accuracy, and instant reporting to the election commission.

Smart glove using Arduino using IOT

- The glove uses flex sensors connected to an Arduino to detect finger and hand movements, which are then converted into meaningful data (like sign language interpretation, patient health monitoring, or control signals).
- Through IoT integration via Wi-Fi module like ESP8266, the captured data from the glove can be transmitted to a mobile app, cloud, or web dashboard, enabling real-time monitoring and remote communication.

Design and Analysis of Trishul Shaped Microstrip Patch Antenna

- A Trishul-shaped microstrip patch antenna is created by modifying a rectangular patch with three protruding prongs (trident shape), enabling multiband operation and compact size.
- Performance is evaluated in terms of return loss, VSWR, bandwidth, gain, and radiation pattern using simulation tools (HFSS/CST), showing enhanced impedance matching and multiband characteristics.

INTERNSHIPS:

BHARAT HEAVY ELECTRICALS LIMITED (BHEL) - 2024

- Studied and analyzed advanced gas turbine controllers for enhanced efficiencyand safety.
- Designed and implemented a CO_2 fire suppression system, ensuring NFPA-12 compliance.
- Integrated key components (CO_2 cylinders, solenoid valves, discharge pipes, pressure switches, fire (detectors) for effective operation.
- Developed extended discharge mechanism to prevent re-flash in high-temperature environment.
- Gained hands-on experience in fire suppression system design, safety protocols, and industrial Fire protection.

CERTIFICATIONS:

- **Salesforce Certification:** AI Associative.
- **Python Certification:** Skill Development and Training.
- **Java Full Stack Certification:** Wipro.
- **Build Your First IOT Application with ARM** – EDX.

EDUCATION:

Laki Reddy Bali Reddy College of Engineering **B.TECH**

Electronics and Communication Engineering | Nov 2021 - May 2025 | CPGA: 8.91

Sri Chaitanya junior College **INTERMEDIATE**

Intermediate - MPC | June 2019 - March 2021 | CGPA: 9.26

ASR SPH School **10th STANDARD**

10th Standard | June 2018 - March 2019 | CPGA: 9.0

SKILLS:

Programming Languages: C Programming Language, Core Java
Databases: SQL
Web Technologies: HTML, CSS
Tools: Cadence, Arduino, Lab-View, Excel, HFSS

WORKSHOPS:

- Participated in hands on work shop on embedded system by ADAQ Technologies PVT.LTD.
- Participated in hands on work shop on PCD DESIGN by Reconfigurable Computing Club.

EXTRA / CO-CURRICULAR ACTIVITIES:

- Central for Promotion Coordinator LAKSHYA 2k24.
- Winner, Volleyball Tournament (2023, 2024).