PENUBAKU AKHILKUMAR
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CAREER OBJECTIVE

Passionate and results-oriented Electronics and Communication Engineering student with hands-on experience in Python, cloud platforms (AWS, Azure, GCP), and automation tools. Eager to contribute technical and problem-solving skills in a forward-thinking organization, while continuously learning and adapting to emerging technologies..

EDUCATION

Jawaharlal Nehru Technological University, Anantapuramu **2021 to 2025**

- BTECH (ECE) – 7.6/10 CGPA

Government Junior College, Venkatagiri **2019 to 2021**

- Intermediate (MPC) – 6.61/10 CGPA **2018 to 2019**

RVM High School, Venkatagiri

- Class X – 7.2/10 .0CGPA

SKILLS

- **Languages:** Python, Java, C++, HTML, CSS, JavaScript, SQL
- **Frontend:** ReactJS, HTML5, CSS3
- **Backend:** Node.js, Express.js
- **Databases:** MySQL, NoSQL, DBMS
- **Cloud Platforms:** AWS, GCP, Azure
- **Tools:** Git, GitHub, VSCode, LeetCode, MS Excel, PowerPoint
- **OS:** Windows, MacOS, Linux
- **Core Subjects:** Data Structures & Algorithms, OOP, Digital Image Processing

INTERNSHIPS

Cloud Computing Virtual Internship — Skill Vertex **07/2023 to 08/2023**

- Engineered Python-based automation scripts for cloud infrastructure management, reducing server deployment and configuration time by 40%.
- Built data analysis pipelines using Pandas and Matplotlib to track and visualize cloud resource consumption, improving resource optimization by 20%.
- Championed the creation of interactive dashboards that tracked database query response times, enabling database administrators to identify and resolve performance bottlenecks, leading to a 40% increase in transaction processing.
- Integrated APIs for real-time cloud resource monitoring, achieving a 30% increase in operational efficiency.
- Performed root cause analysis and real time system monitoring

Robotic Process Automation (RPA) Training **10/2024 to 11/2024**

- Implemented Python automation scripts to eliminate repetitive business tasks, improving process turnaround time by 35%.
- Created data extraction and processing solutions, enhancing workflow accuracy by 25% and supporting better decisionmaking with automated reports.
- Exposed to Tier 1/Tier2 support principles through automation of repetitive support task
- Developed data extraction, transformation, and reporting workflows that improved accuracy by 25% and enabled real-time decision-making in support environments

PROJECTS

Power Generation Using Footsteps (Embedded Systems) **Apr 2025**

 Technologies: Embedded C, Arduino, Piezoelectric Sensors, Voltage Regulators, Rechargeable Battery, Proteus (Simulation), Fritzing (PCB Design), Arduino IDE

- Developed an innovative energy harvesting system that converts mechanical energy from foot pressure into electrical energy using piezoelectric sensors.
- Designed and implemented an embedded system circuit using microcontroller to regulate and store the generated voltage.
- Integrated a charging module to store power in rechargeable batteries for low-power electronic devices (e.g., LEDs, mobile chargers).
- Simulated and tested the circuit performance using embedded system tools and verified power output efficiency.
- Ensured circuit stability with rectifiers and voltage regulators to prevent power fluctuations.
- Focused on sustainability and renewable energy by promoting low-cost, eco-friendly power solutions for public places like railway stations and footpaths.
- Presented the project at academic expos, receiving positive feedback for practical innovation and applicability.
- Documented design architecture, block diagram, working model, and power output data in the final report.

Suspicious Activity Detection Using Convolutional Neural Networks (CNN) **Jun 2025**

 Technologies: Python, Convolutional Neural Networks (CNN),

- Developed a **deep learning-based surveillance system** to identify suspicious human activities in real-time.
- Leveraged **CNNs and ANNs** for pattern recognition and motion analysis.
- Integrated system to trigger alerts instantly upon threat detection.
- Trained the model with extensive surveillance datasets for higher accuracy.
- Optimized the model to run efficiently on edge devices for low-latency applications.
- Improved system response time and detection reliability through iterative testing. Designed UI to visualize activity detection results and system status.
- Suitable for smart city and public security use-cases.

CERTIFICATIONS

- Python Certificate – IBM Developer Skills Network
- NCSC (2017)
- NCC (A Certificate 2018)
- NSS (2021)
- Webcasting of Election Proceedings during Bye-Election (2022)

SOFT SKILLS

- Leadership
- Coordinated between technical teams and clients during the deployment of automation solutions, ensuring 100% requirement fulfillment.
- Completed a 2-month cloud computing internship project in 1.5 months by prioritizing tasks and streamlining automation workflows.
- Creativity
- Interested in Technical Support & Client Communication
- Strong understanding of modern ITSM concepts with hands-on familiarity across Windows, macOS, and Linux platforms. Experienced with IT operations, endpoint security, and tools like EDR, SOC, SCCM, Intune, and MDM. Skilled in basic networking and effective in both written and verbal communication.
- Solved 300+ coding problems on LeetCode, enhancing problem-solving and algorithmic skills.