RANISH GHIMIRE

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PROFESSIONAL SUMMARY

Cybersecurity and AI-focused Computer Engineering student with hands-on experience in SIEM analysis, threat monitoring, and AI model development. Experienced with IBM QRadar, Splunk, ELK, and machine learning models (CNN, LSTM). Strong background in SOC operations, security reporting, and full-stack development using MERN and FastAPI.

EXPERIENCE

Cybersecurity Intern – Raechal Enterprise   **3 Months**

- Monitored and analyzed security events in IBM QRadar SIEM to identify anomalies and potential incidents.
- Investigated suspicious logs and correlated events to detect threats and minimize false positives.
- Generated monthly security reports highlighting incident trends and attack patterns.
- Managed user roles, access controls and system configurations in QRadar Admin Console.
- Onboarded log sources and optimized DSM configurations in IBM QRadar to enhance visibility.

PROJECTS

Voice2Care: Mental Health Monitoring and Support System   **Ongoing**

- Built a real-time speech emotion recognition and transcription pipeline for live audio analysis.
- Fine-tuned the all-MiniLM-L6-v2 model for improved semantic understanding.
- Integrating custom Emotional RAG using Query Routing operating on 3 different modes.
- Developing a risk detection module to identify violence and self-harm indicators.
- Designing an automated alert system for emergency escalation and rapid response.

Poseperfect   DEMO   **Jan 2025**

- Developed a real-time fitness tracking system using fine-tuned MobileNetV3Small (CNN) with LSTM (128 units) for temporal sequence modeling.
- Trained on custom self-built dataset of 12090 frames for each exercise samples
- Achieved 92% validation accuracy for exercise detection.
- Implemented repetition counting and posture correction logic using OpenCV and MediaPipe for real-time feedback.
- Integrated the trained model into a React frontend with a FastAPI backend for real-time inference and tracking.

Emotion Detection Model   **Sep 2024**

- Extracted log-Mel spectrogram features using digital signal processing for audio emotion classification.
- Fine-tuned MobileNetV3Small and EfficientNet-B3 to compare model performance.
- EfficientNet-B3 achieved 87% validation accuracy, outperforming baseline models.
- Trained and evaluated the model on RAVDESS and TESS emotional speech datasets covering 8 emotion classes.

Jobify   **Jan 2024**

- Built a scalable job portal using the MERN stack, enabling job posting, search, and user role management.
- Designed secure authentication and role-based access control (RBAC) using JWT and HTTP-only cookies.
- Integrated Cloudinary for optimized cloud storage and media management.
- MongoDB Atlas for Backend

EDUCATION

Bachelor in Computer Engineering (TU/IOE) **Ongoing**

Kantipur Engineering College
Currently 8th Sem
Expected Graduation: 2026

+2, Science **2021 AD**

DAV Sushil Kedia Vishwa Bharati School
GPA - 3.85 / 4

Schooling **2019 AD**

Adarsha Vidya Mandir (A.V.M.)
SEE GPA - 3.8 / 4

SKILLS

Technical Skills

- **Cybersecurity:**
SOC Operations, Threat Analysis, Incident Response, SIEM (IBM QRadar, Splunk, ELK, Wazuh), Log Analysis, Vulnerability Assessment
- **Security Tools:**
Nmap, Metasploit, OpenVAS, Nessus, Burp Suite SQLmap, Hydra, Aircrack-ng suite, Netcat, Dradis, Cisco Packet Tracer, Ghidra, IDA Pro, x64dbg
- **Programming:**
Python, JavaScript, C, C++, SQL, Bash, PowerShell
- **Web Development:**
React, Next.js, Express.js, FastAPI, MongoDB, REST APIs
- **Machine Learning & AI:**
CNN, LSTM, MobileNetV3, EfficientNet, Spectrograms, DSP, RAG, NLP

ADDITIONAL INFORMATION

Certifications

- Advanced Cybersecurity - Broadwayinfosys
- IBM QRadar SIEM Foundations - IBM
- Certified Ethical Hacker - Cisco
- Networking Basics - Cisco
- Machine Learning, Deep learning, AI Certifications - Coursera
- MERN Stack Certification - Udemy

Awards/Activities

- Ranked 1st university-wide in the 6th semester and consistently earned Gold Medals as college topper for six consecutive semesters (currently 8th semester).
- Won 2nd Runner-Up title at Hult Prize 2024.