Gobinda Pandey

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Summary

Cybersecurity enthusiast focused on offensive and defensive security, with a passion for penetration testing and network security. Dedicated to solving real-world challenges and advancing cybersecurity practices, with a strong interest in AI/ML-driven solutions.

Skills

Cybersecurity Tools: Burp Suite, Cisco Packet Tracer, Kali Linux, NMAP, Metasploit, Wireshark

Machine Learning: PyTorch, Scikit-learn, Keras, NumPy, Pandas, TensorFlow, OpenCV

Programming Languages: Python, C, C++, Assembly

Database: MySQL, MongoDB

Miscellaneous: GNU Assembler, Arduino Uno, OpenWrt, LaTeX, Git

Education

Rochester Institute of Technology — **Rochester, NY, USA**
PhD in Computing and Information Sciences — *2024–Present*

Tribhuvan University — **Pokhara, Nepal**
Bachelor's in Electronics, Communication, and Information Engineering — *2018–2023*

Experience

2024–2025: Graduate Research and Teaching Assistant, Rochester Institute of Technology

Conducted research on timing attack vulnerabilities in microarchitectures and developed defense mechanisms. Supported teaching and mentoring for CSEC 622 (Side Channel Analysis).

Certifications

2024: Reactor Certification, Chainalysis

2024: Cyber Security Specialization, Coursera

2023: Google Cybersecurity Professional Certificate, Coursera

Projects

2025: **Crotonylation Site Prediction:** Developed a deep learning model to predict lysine crotonylation (Kcr) sites using pretrained language models (pLMs), integrating global protein context and local sequence windows with attention-based fusion for improved accuracy.

2025: **Intrusion Detection System (SUEE1 Dataset):** Built an intrusion detection system using machine learning on the 2017-SUEE dataset, applying feature engineering and training models (Random Forest, Decision Tree, MLP, Logistic Regression) with metrics like Precision, Recall, and AUC-ROC.

2024: **CNN-based Number Plate Recognition:** Developed an automated system for vehicle number plate recognition using CNNs and image processing techniques, enhancing image quality with super-resolution and utilizing bounding box segmentation for accurate character recognition.

Accomplishments and Awards

2024: Merit-based PhD scholarship, Rochester Institute of Technology.

2018: Full Scholarship for Undergraduate Studies, awarded by Nepal Government.