Gobinda Pandey

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RESEARCH INTERESTS

Network Security, IoT Security, Machine Learning, Embedded Systems Security, Vulnerability Detection, Side-Channel Analysis, Cryptography, Data Privacy, Blockchain Analytics, Cloud Security

PUBLICATIONS

- **Pandey, G.**, C, K. K., Lamichhane, N. and Subedi, U. (2023). CNN based System for Automatic Number Plate Recognition. Journal of Soft Computing Paradigm, 5(4), 347-364. doi:10.36548/jscp.2023.4.002

- **Pandey, G.**, Sunar, A., Yogi, J., Poudel, N. and Koirala, K. R. (2023). Electronic Health Record Management System using RFID: Improving Efficiency and Accuracy in Healthcare. Journal of Information Technology and Digital World, 5(3), 274-290. doi:10.36548/jitdw.2023.3.004

- Sunar, A., Lamichhane, B., **Pandey, G.**, Yogi, J. and Poudel, N. (2023). Trek Monitoring System: Enhancing Safety and Adventure in the Outdoors using Arduino UNO and NodeMCU. Journal of Electronics and Informatics, 5(3), 235-252. doi:10.36548/jei.2023.3.001

EDUCATION

Rochester Institute of Technology   Rochester, NY, USA
PhD in Computing and Information Sciences   *Aug 2024 – Present*
- **Relevant Courses:** Network Security, Deep Learning, Cyber Analytics and Machine Learning, Research Methods, Quantitative Foundations, Cryptocurrency/Blockchain Analytics

Tribhuvan University (Institute of Engineering)   Pokhara, Gandaki, Nepal
Bachelor's in Electronics, Communication and Information Engineering   *Nov 2018 – Sep 2023*
- **Relevant Courses:** Computer Network, Artificial Intelligence, Data Mining, Big Data Technologies, Wireless Communications, Embedded Systems, Data Structure and Algorithms, Information Systems

EXPERIENCE

Graduate Research and Teaching Assistant   Rochester, NY, USA
Rochester Institute of Technology   *Aug 2024 – Present*
- Researched exploring timing attack vectors on different microarchitectures and worked as a teaching assistant for the CSEC 622: Side Channel Analysis course.

CERTIFICATIONS

Reactor Certification, *Chainalysis*   Nov 2024
- Acquired knowledge and skills to analyze and trace transactions on the Bitcoin blockchain using the Chainalysis Reactor tool.

Cryptocurrency Fundamentals Certification, *Chainalysis*   Oct 2024
- Gained insights into cryptocurrency fundamentals, including blockchain technology and cryptocurrency, and learned to utilize blockchain explorers to investigate Bitcoin transactions.

Cyber Security Specialization, *Coursera*   Jan 2024 – Mar 2024
- Covered four courses on Introduction to Cyber Attacks, Cyber Attack Countermeasures, Real-Time Cyber Threat Detection and Mitigation, Enterprise and Infrastructure Security.

Datacom Cybersecurity Job Simulation, *Forage*   Feb 2024
- Completed a job simulation focused on how Datacom's cybersecurity team helps protect its clients.

- Investigated a cyberattack and reported the key recommendations to improve the client's cybersecurity posture.

Tata Cybersecurity Security Analyst Job Simulation, *Forage*   Feb 2024
- Completed a job simulation involving identity and access management (IAM) for Tata Consultancy Services.
- Acquired expertise in IAM, cybersecurity best practices, and strategic alignment with business objectives.

Google Cybersecurity Professional Certificate, *Coursera*   May 2023 – Oct 2023
- Covered topics including Security Risk Management, Network Security, Linux and SQL tools, Threat Detection and Response, and Python-based Cybersecurity Task Automation.

Blockchain Specialization, *Coursera*   Feb 2023 – Apr 2023
- Obtained insights on the foundations of blockchain, smart contracts, decentralized applications (Dapps), and blockchain platforms.

PROJECTS

Trek Monitoring System: Enhancing Safety and Adventure in the Outdoors
- Built a prototype gadget that updates trekkers about current location, humidity, weather forecast, and basic health information like body temperature, and heart rate.
- Published as a paper in the Journal of Electronics and Informatics.

RFID-based Electronic Health Record Management System
- Developed an RFID-based system to securely record and access electronic health records.
- Published as a paper in the Journal of Information Technology and Digital World.

Agrobot: Multi-Function Agricultural Robot
- Prototyped a remote controller-based machine to plough fields, sow seeds, and water plants.

SKILLS

- **Programming:** C, C++, Assembly, Python
- **Database:** MySQL, MongoDB
- **Tools:** GNU Assembler, Reactor, Arduino Uno
- **Misc:** OpenWrt, LaTeX, Git, Linux
- **Languages:** English, Nepali, Hindi

HONORS AND AWARDS

- **Scholarship/Assistantship for PhD**
  Received a merit-based scholarship at RIT to pursue a PhD in Computing and Information Sciences.

- **Winner - Battle for Speed**
  Achieved first position in a robotic racing competition organized by the Robotics Club, IOE, Tribhuvan University.

- **Full Scholarship for Undergraduate Studies**
  Awarded by Nepal Government for securing rank in Tribhuvan University, Institute of Engineering entrance examination.