

Saniel Bhattarai

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Kathmandu, Bāgmatī, Nepal

SUMMARY

A passionate tech enthusiast with a strong grasp of programming, data structures, and database management. Skilled in machine learning & cybersecurity, with a proven ability to collaborate and deliver innovative solutions. Eager to apply technical expertise and grow in a dynamic environment.

EDUCATION

Vellore Institute of Technology (VIT), Vellore <i>B. Tech in Computer Science with Specialization in Information Security</i>	CGPA: 8.77 2021-2025
Trinity International College <i>Class XII</i>	Marks: 87% 2019
Trinity International College <i>Class X</i>	Marks: 92.5% 2017

PROFESSIONAL EXPERIENCE

CodeQuant Pvt. Ltd. <i>Python Developer Summer Intern</i>	Patan, Nepal August 2023 – November 2023
<ul style="list-style-type: none">Developed a comprehensive recommendation system using a Graph Neural Network (GNN) to deliver personalized suggestions for movies, food, and workouts in a unified model.Collected and aggregated large datasets from multiple APIs, ensuring accurate and relevant data for the recommendation engine.Cleaned and preprocessed data to optimize model training and improve recommendation accuracy.Gained hands-on experience with tools such as Postman for API testing and data retrieval during system development.Collaborated closely with team members to integrate the recommendation system into the company's ecosystem, enhancing user experience.Contributed to ongoing improvements by identifying performance bottlenecks and optimizing the recommendation model's efficiency.	

SKILLS

Programming:	Python, Java, C, C++, SQL, JavaScript, Typescript
Development:	NextJS, ReactJS, NodeJS, Express, Electron, Tailwind, Flask, FastAPI
AI/ML:	TensorFlow, Keras, Scikit-learn, Hugging Face, OpenCV, NLTK, SpaCy, Seaborn
Deployment:	Docker, Kubernetes, Nginx, Streamlit, Gradio, Vercel
Security:	Wireshark, Nmap, Snort, Nessus, Splunk, QRadar, Burp Suite, Metasploit, Sysmon, Autopsy, FTK Imager, Nikto, Shodan, Hydra
Other Tools:	Linux, Git / GitHub, Computer Networking, Excel, Photoshop, Premiere Pro, Figma

PROJECTS

CNN Model for Image Classification

Developed a Convolutional Neural Network (CNN) for image classification using TensorFlow and Keras. The model was trained on a labeled dataset, utilizing multiple layers to extract image features and improve accuracy. Implemented techniques like data augmentation and dropout to optimize performance. Achieved significant accuracy in classifying images into predefined categories.

Password Manager in Python with Tkinter

Built a secure password manager using Python and Tkinter for the user interface. Integrated features for storing, encrypting, and retrieving passwords. Utilized cryptographic libraries to ensure data security, with a simple, intuitive interface for users to manage their credentials efficiently. Implemented functionality for generating strong passwords and securely storing them in a local database.

RESEARCH

Security Implications of DMARC, SPF, and DKIM in Email Auth Systems

VIT

This research paper examines the implementation of DMARC, SPF, and DKIM protocols in email authentication systems, focusing on their effectiveness in mitigating email spoofing, phishing attacks, and other security threats. It also analyzes the vulnerabilities and limitations of these protocols in modern email infrastructures and their potential implications for future cybersecurity practices.

CERTIFICATIONS

Google Cloud Computing Foundations

Completed four courses developed by Google that provided foundational knowledge in cloud computing. Gained hands-on experience in Google Cloud's core services such as compute, storage, networking, and security. Learned to manage and deploy applications in the cloud, implement security best practices, and optimize resources for cost and performance.

Certified Ethical Hacker (CEHv12)

Achieved a score of 117/125, demonstrating comprehensive knowledge of ethical hacking and cybersecurity. Mastered techniques for identifying and addressing security vulnerabilities, ensuring robust protection against cyber threats.

VOLUNTEERING

Becoming I Foundation, Vellore

Vellore, Tamil Nadu

- Served as a Volunteer at Becoming I Foundation (BIF), a UN Recognized NGO focused on providing free, high-quality education to underprivileged children.
- Conducted interactive learning sessions with children, fostering their academic growth and personal development.
- Assisted in preparing educational materials and lesson plans tailored to meet the diverse needs of the students.