ROJAL KARKI

Personal Details

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Profile

Dedicated IT Engineering student with strong technical skills, quick learning ability, and a creative problem-solving approach. Focused on developing innovative solutions and thriving in dynamic environments.

Education

Primary level School at New Horizon Institute, Butwal [April 2005 - April 2018] Secondary Level College at GBS Horizon, Butwal [June 2018 – April 2021] Bachelor of Engineering in Information Technology at Everest Engineering College, Kathmandu [October 2021 – October 2025]

Technical Skills

- 1. **Programming Languages:** Python, Java, C, C++, JavaScript, C# (.NET)
- 2. Web Development: HTML, CSS, React, Node.js
- 3. Database: MySQL, MongoDB, Express, MS SQL Server, SQL Profiler
- 4. **DBA Tasks:** Backup/restore, performance tuning, indexing, replication, database security, high availability (HA), disaster recovery (DR)
- 5. **Networking**: Routing and switching, VLANs, subnetting, network troubleshooting
- 6. **Cybersecurity**: Encryption techniques, firewall configuration, security protocols, penetration testing, vulnerability assessment, network security monitoring
- 7. Operating Systems: Windows, Linux (Ubuntu, basic), Kali Linux
- 8. Version Control: Git, GitHub, Bitbucket
- 9. **Tools**: Visual Studio, Visual Studio Code, NetBeans, Docker, Cisco Packet Tracer, Postman, Draw.io, MATLAB, MS Office

Projects

1. Blood Stock Management:

- **Description:** Developed a system to monitor and manage blood inventory levels, enabling real-time updates.
- Tools Used: HTML, CSS, JavaScript, MySQL, PHP, Bootstrap.

2. Vehicle Detect and Count:

- **Description:** Built a real-time system to detect and count vehicles using photos for traffic monitoring and analysis.
- **Technologies/Tools Used:** Python, OpenCV, TensorFlow.

3. Blog App:

- **Description**: Designed and implemented a dynamic blogging platform for users to publish, edit, and manage blog posts with user authentication.
- Technologies/Tools Used: React, Node.js, Express, MongoDB

4. Network Traffic Filtering Using Cisco Devices:

- **Description:** Designed and implemented a network traffic filtering system using real Cisco networking devices to monitor, analyze, and control network traffic. Configured access control lists (ACLs), firewall rules, and network security protocols (such as HTTPS, SSH, and SNMP) to enhance security and performance.
- Technologies/Tools Used: Cisco Routers & Switches, Cisco Packet Tracer, Wireshark, ACL, VLAN, Routing Protocols.

Certifications

1. **MERN STACK at Broadway Infosys, Kathmandu [2024 Jan]-** Learned to develop full-stack dynamic web applications using MongoDB, Express.js, React.js, and Node.js.

Work Experience

1. **SQL & Backend Developer** -6 Months

MediPro Computers Pvt Ltd – Putalisadak, Kathmandu

- Developed and maintained backend services using SQL and .NET.
- Created, optimized, and maintained complex stored procedures and database functions.
- Designed and implemented RESTful APIs.
- Collaborated with frontend teams on API integration and data workflows.
- Ensured data integrity, security, backups, and best practices.

Key Competencies

- Network setup, routing, switching, VLANs, and subnetting
- Firewall, encryption, penetration testing, and security monitoring
- Database installation, backup, restore, tuning, and security
- SQL stored procedures, query optimization, and profiling
- Backend development and RESTful APIs using .NET
- API integration and data workflow collaboration
- IT support, system maintenance, and software updates

Soft skills

- Strong problem-solving ability
- Quick learner and adaptable
- Team player with good collaboration skills
- Solid software engineering mindset

Languages

- English
- Hindi
- Nepali.