

Arjun Ray

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SKILLS

Programming: Python, JavaScript, C++, Shell, SQL, React, Matlab

Frameworks/Technologies: TensorFlow, Node.js, Flask, MongoDB, Scikit

Developer Tools: VScode, Git, Vim, Docker, Linux

Languages: Nepali (Native), English (Professional), German (A1), Hindi/Bhojpuri(Native)

EDUCATION

- **Institute of Engineering, Pulchowk Campus** 2021 – 2025
B.E. in Electronics, Communication and Information Engineering Pulchowk, Lalitpur
- **Trinity International College** 2018 – 2020
Higher Secondary Education, Science (GPA: 3.73) Kathmandu, Nepal

RESEARCH PUBLICATIONS

- **Machine Learning-Based Attack Detection and Mitigation with Multi-Controller Placement Optimization over SDN Environment:** [Journal of Cybersecurity and Privacy, Q1](#)
- **Game Theoretic Approach to QoS Oriented Machine Learning Model Development towards 5G Network Migration Planning:** [IEEE Access, Q1](#)

PROJECTS

- **E-commerce Platform (SQL-focused)** 2024
GitHub: [DBMS-Project](#)
 - **MySQL Schema Design:** Built normalized schema for products, users, and orders.
 - **SQL Programming:** Created queries, triggers, and stored procedures.
 - **Integration:** Linked MySQL with Flask backend.
- **Neural Style Transfer Art Generator** 2023
GitHub: [Deep-Learning-Projects](#)
 - **Transfer Learning:** Used VGG-19 for NST image blending.
 - **Optimization:** Refined output using gradient descent.
- **Bird Image Generator using StyleGAN** In Progress
 - **Text-to-Image Generation:** Encoded text to feed into GANs for image synthesis.
 - **Training Constraints:** Faced limitations on Google Colab GPU runtime.

EXPERIENCE

- **Cosmos Engineering College** 2024
Part-Time Teaching Assistant – Computer Workshop Kathmandu, Nepal
 - **Curriculum Delivery:** Taught Linux basics, Database, and computer networking.
 - **Practical Focus:** Led sessions on file servers and network services.

TECHNICAL SKILLS

- **System Administration**

- Proficient in linux commands, shell scripting, file management, and system management.
- Strong understanding of operating system concepts such as process scheduling, memory management, system calls, and file systems.

- **Networks and Databases**

- Comfortable working with RDBMS (SQL) and NoSQL databases, including searching and indexing.
- Deep understanding of networking protocols (TCP/IP, UDP, DNS, DHCP, HTTP, etc.) and APIs.

- **Artificial Intelligence and Machine Learning**

- Strong understanding of mathematics, statistics, and heuristics behind AI/ML models
- Experienced with Computer Vision, Natural Language processing, Data processing, and optimization.

- **Research and Innovation**

- Skilled in documenting and presenting research projects through well-structured academic papers.
- Adept at generating innovative and interdisciplinary ideas to address complex real-world problems.

AWARDS AND ACHIEVEMENTS

- **UGC Fellowship:** University Grant Commission Fellow, 2023–2024
- **LICT Project Lead:** Led student research under Laboratory of ICT
- **LOCUS – Cybersecurity Lead:** Organized tech events and training at IOE Pulchowk
- **Codechef 3-Star:** Problem solving enthusiast

CERTIFICATIONS

- **Deep Neural Networks:** NPTEL, IIT Madras
- **Computer Vision:** Kaggle
- **Natural Language Processing:** Coursera
- **Linux Tools for Developers:** Coursera
- **Network Essentials:** Cisco
- **Writing for the Sciences:** Coursera