

Samundra Karki
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PROFESSIONAL EXPERIENCES

Graduate Research Assistant

ComPM Lab

August 2023– Current

- Geometric Deep Learning, High-Performance Computing, Hybrid GPU-CPU collaboration
- Application Area: NERFs, 3D reconstruction
- Tech Stack: PyTorch, C++, GPU Profiling, CUDA, Bash, Deep Learning in Production

AI Fellow

FuseMachine

Jan 2023–Jan 2024

- TechStack: Scikit-learn, PyTorch, TensorFlow, Python, FastAPI, Containerization

Computational Analytics and Rust Developer

Zebec Protocol

November 2021– January 2022

- Tech Stack: Rust, Javascript (SDK Development), FastAPI, Python, DataBricks, Web Development, DevOps
- Application Area: Smart Contract, Blockchain, Solana

Senior Product Manager: Ashish Shrestha, Email: ashish@zebec.io

Computational Analytics and Smart Contract Engineer

Mokshya Protocol

May 2022– Current

- Tech Stack: Rust, Move, Javascript (SDK Development), Product Management
 - Application Area: Aptos Blockchain, NFTs, ZK Proof
- Co-Founder: Ajay Gautam, Email: ajay@mokshya.io*

Product Management

Ingot Education

September 2022–Aug 2023

- Focused on providing skills through online enhanced learning
 - Currently launching Engineering Council Preparation Class
- Email: samundra@ingoteducation.com*

Computational Research Intern

Kulekhani III Hydropower Project

April - June 2021

- Computational and Mathematical Analysis of the Performance of the Hydro Turbine
- Cost-Benefit Analysis of the Hydropower

Supervisor: Er. Prabesh Raj Devkota (Mechanical Head), Email: Neaprabesh@gmail.com

EDUCATION

Graduate Study in Computer and Mechanical Engineering

August 2023-

Current

Iowa State University

GPA 4.0

Bachelor in Engineering

November 2017 - April 2022

Institute of Engineering, Pulchowk Campus

Graduated With Gold Medal

Highlight Projects

Machine Learning and Deep Learning

[Spline To Field using AutoEncoders](#)

[Vision Transformer NERF Dissection](#)

Deep Learning for Accelerated Finite Element Analysis **

[Predictive Maintenance](#)

[Random Forest ML Service](#)

[Design of Experiment for Synthetic Data Generation](#)

Blockchain

Zebec

[Zebec Anchor](#)

Mokshya

[NFT-Random-Mint](#), [Merkle-Proof](#), [NFT Vesting](#), [Token-Vesting](#)

[Warkade](#), [TPS-Train](#), [Staking](#)

Computational Analysis

[Optimization of Turbine](#)

Product Management, Web Dev

[Wapal](#), [Ingot Education](#)

SCIENTIFIC PUBLICATIONS

Conference Papers

Comparative CFD analysis of Kali-Gandaki "A" Francis runner with runner generated from Bovet method

<https://dx.doi.org/10.1088/1755-1315/1037/1/012007>

SPECIALIZATION

[MLOps | Machine Learning Operations](#)

SKILLS AND INTERESTS

Programming

Rust, Python, C, C++, Javascript, Typescript,

Software

GitHub CI/CD, MLFlow, DataBricks, Hugging Face, Optuna, Azure

Hobbies

Political Analysis, Books, Poem