

## Work Experience

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### Logpoint Inc.

Software Engineer

April 2024 – Present

Lalitpur, Nepal

- Building and maintaining tool for application server(linux) monitoring.(Tech stack: Golang, graphql, JS, python)
- Managing whole software development lifecycle of a customer facing License Portal. Tech stack(Typescript, Rust, NodeJS, graphql, gRPC, NestJS, ansible, gitlabci, docker)

### Logpoint Inc./ Tribhuvan University

Lab Tutor (Part time)

Jan 2024 – March 2024

Lalitpur, Nepal

- Assisted lecturer in an elective course “Security Operations Fundamentals” conducted in collaboration with Logpoint and Institute of Engineering, Pulchowk Campus, Tribhuvan University.
- Created course materials, evaluated assignments and conducted labs on topics: Phishing Awareness, Threat Modeling and Hunting, Security Information and Event Management.
- Instructed and guided on the labs of Network intrusion, Web and linux systems security, Application Security leveraging an amazing resource of Arizona State University [pwn.college](https://pwn.college)

### Logpoint Inc.

Solutions Engineer

May 2023 – March 2024

Lalitpur, Nepal

- Worked on L3 support level handling complex issues related to Software, Application and Network systems.
- Handled over 150 customer cases.
- Conducted technical training programs for new hires.
- Worked extensively in fields of SSL/TLS, PKI, Cloud(AWS).
- Worked temporarily in a role of Software Developer for the Logpoint’s project AgentX; resolved more than 10 complex software bugs and performance issues accelerating software delivery.

### Logpoint Inc.

Associate Solution Engineer

April 2022 – April 2023

Lalitpur, Nepal

- Conducted thorough debugging, testing and code reviews of SIEM application and its components.
- Proficient in troubleshooting Linux and Windows systems, addressing issues related to CPU, Memory, Network, Filesystem, and Disk.
- Worked on fields of Cryptography, Authentication/Authorization, REST API, Cloud, Nxlog, and Wazuh.
- Developed Python and Bash scripts for internal use and Proof of Concepts, enhancing operational efficiency.
- Gained expertise in troubleshooting application issues with various tech stacks including Python, Java, C, SQL, MongoDB, Lucene, Docker, AWS SDKs, and Kafka.
- Demonstrated exceptional customer support skills, handling over 450 customer cases with clear communication and providing comprehensive Root Cause Analysis.

### Techniti Nepal

Software Developer and Co-founder

Feb 2021 – March 2022

Lalitpur, Nepal

- Designed and developed software solutions for government and private organizations, including web applications for healthcare, management portals, and a cricket fantasy platform
- Gained experience on Python, JavaScript, MySQL, Linux servers, and Docker, Github actions etc.
- Actively participated in the full software development lifecycle and ensured application uptime during large traffic.

## Sireto Technology

Software Engineering Intern(part-time)

Sept 2021 – Dec 2021

Lalitpur, Nepal

- Learned enterprise software development practices
- Worked on Haskell to build smart contracts on Cardano blockchain platform
- Completed Plutus Pioneer Program and solved every intern tasks assigned.

## Education

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### Bachelor in Computer Engineering

Pulchowk Campus, Institute of Engineering, Tribhuvan University

November 2017 - April 2022

Lalitpur, Nepal

- Capstone Project: Speech Recognition In Nepali Language
- Academic Supervisor: Subarna Shakya, Ph.D
- Achieved **Rank 29** in Entrance Exam of 2017 A.D. out of nearly 18,000 candidates.
- Graduated with First Division honors, achieving an impressive aggregate of **78.21%**.

### High School

Liverpool International College

June 2015 - June 2017

Kathmandu, Nepal

- Graduated in the **top 5** of the class, demonstrating exceptional academic performance.
- Attained a distinction with an impressive **85.8%** aggregate, reflecting a strong commitment to excellence throughout high school.

## Publications

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### Conference Paper

M. Dhakal, A. Chhetri, A. K. Gupta, P. Lamichhane, S. Pandey and S. Shakya, "Automatic speech recognition for the Nepali language using CNN, bidirectional LSTM and ResNet," 2022 International Conference on Inventive Computation Technologies (ICICT), Nepal, 2022, pp. 515-521, doi: 10.1109/ICICT54344.2022.9850832.

## Select Projects

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### Automatic speech recognition for the Nepali language

Academic Project

- Developed a state of the art Deep Learning Model using CNN, LSTM and ResNet and achieved the Character Error Rate(CER) of 17.06%
- Enhanced the accuracy by applying Transfer Learning using then state of the art wav2vec transformer model.
- Deployed a web interface for testing out the speech recognition model
- Built a chatbot for domain-specific question/answering
- Built a platform for the data collection for further training and fine tunings

### Distributed Filestore

Distributed filestore from scratch in go

- Implemented a distributed filestore completely from scratch in go.
- It allows one to store files in distributed fashion and retrieve them from any nodes.

### HTTP Server

From scratch in GoLang

- Wrote a small version of net/http library following the similar patterns of standard library
- Includes a custom multiplexer using Trie datastructure

## Technical Skills

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- Fundamentals of Datastructure and Algorithms
- Python programming lanaguage with experience on frameworks such as Flask, Django, FastAPI etc.
- Bash Scripting, C/C++, Haskell, Javascript and Go programming language
- Operating System(Linux), Computer Network and System Troubleshooting
- DevOps tools such as Vim, Git, Ansible, Puppet, Github Actions, Docker, Kubernetes etc.
- Troubleshooting tools such as netstat, wireshark, strace, perf, btrace

## Soft Skills

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- Fluent in written and spoken English communication
- Problem Solving skills
- Can work at High Pressure environment
- Fast Learning and Research Skills

## License and Certifications

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<b>ISC2</b>	Certified in Cybersecurity
<b>LinkedIn</b>	Advanced Linux: The Linux Kernel
<b>Cisco Networking Academy</b>	Networking Essentials
<b>AWS</b>	AWS Academy Graduate
<b>Coursera</b>	Algorithmic Toolbox
<b>Coursera</b>	Deep Learning Specialization

## Affiliations

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<b>LOCUS</b>	Datarush Contest Organizer	2021
<b>LOCUS</b>	Children In Tech Organizer	2021
<b>Microsoft</b>	Microsoft Learn Student Ambassadors	2019
<b>ANSWER</b>	American Nepal Student and Women Education Relief's Scholar	2012-2022

## References

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<b>Prof. Dr. Subarna Shakya</b>	Professor of Computer Engineering, Department of Electronics and Computer Engineering, Pulchowk Campus, Institute of Engineering, Tribhuvan University, Email: <b>drss@ioe.edu.np</b>
<b>Santosh Baral</b>	Director of Support and Operations, Logpoint Inc. Lalitpur, Email: <b>sab@logpoint.com</b>