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EDUCATION BACKGROUND

## Advanced College of Engineering and Management, Tribhuvan University

• Bachelor of Computer Engineering-(71.00%)

#### Valmiki Shiksha Sadan

• High School (physical Science)- (3.22)

Kathmandu, Nepal

November 2018- July 2023

Chitwan, Nepal

June 2016-May 2018

#### **EXPERIENCES**

#### • Advanced College of Engineering and Management

Instructor (Full-time)

May 2024 -Present

Kathmandu, Nepal

- Lab Instruction: Providing lectures and performing lab activities on Object-Oriented Programming (OOP). Conducted lab
  exams and report viva to assess and ensure student proficiency in applying OOP concepts.
- Curriculum Development: Designed and implemented lab exercises aligned with the course objectives, facilitating hands-on learning and practical application of OOP principles.

# GalliExpress(Gallimaps)

Software Developer

 $July\ 2023\ -December\ 2023$ 

Lalitpur, Nepal

- Development: Actively participated in app development projects, specializing in Flutter, to create a powerful map application designed for navigating the narrow alleys in Nepal. Contributed to the enhancement of the core software features, significantly improving user experience.
- o **Optimization**: Utilized GetX state management for efficient application state handling. Managed API integration for the development of a custom map of Nepal, optimizing data flow and performance.
- Quality Assurance: Integrated 3D mapping services to enhance user experience and provide accurate navigation in challenging urban landscapes. Conducted thorough testing and debugging to ensure the stability and reliability of the application.

# PACE (Project Association for Computer and Electronics) Secretary

July 2022 - August 2023 Kathmandu, Nepal

- Facilitation of Skill Development Courses: Organized and managed various workshops, seminars, and competitions to empower students with essential skills and knowledge necessary for success in the modern world. Conducted comprehensive skill-building training sessions, helping students unlock their full potential.
- Assistance with Project Development: Nurtured student potential by guiding project selection for tech festivals and
  inter-college competitions. Coordinated with club members to plan and execute computer engineering projects,
  providing a platform for students to showcase their skills and drive personal and professional growth.
- Event Coordination: Assisted in organizing technical events and guest lectures, ensuring smooth execution and high
  participation rates. Facilitated communication between club members, faculty, and external organizations to foster
  collaboration and knowledge exchange.
- Club Management: Organized and managed various club activities, including workshops, seminars, and competitions. Facilitated communication between club members, faculty, and external organizations to ensure effective collaboration and execution of projects.

# • IIT Bombay Competitions

Team Leader, Meshmarize & Team Co-leader, Cozmo Clench

December 2022 Mumbai, India

- Leadership and Coordination: Led a team of four members in the Meshmarize competition and three members in the Cozmo Clench competition, both organized by IIT Bombay. Coordinated team meetings, delegated tasks, and monitored progress to ensure timely completion of projects.
- Project Development: Designed and developed an autonomous robotic mouse capable of solving maze puzzles.
   Implemented innovative strategies in collaboration with team members to optimize the robot's performance.
- Team Collaboration: Fostered a collaborative environment, ensuring effective communication and teamwork.
  Guided the team through the project phases, from initial design to final implementation, achieving high performance in the competitions.

#### **PROJECTS**

Servemandu July 2022 – April 2023

Major Project, IOE, TU

- Overview: Servemandu is an app for home services that utilizes machine learning to optimize functionality. We developed
  a full-stack mobile application with a service recommendation system to provide personalized user recommendations for
  booking services.
- o Technology: Firebase, Flutter, Dart and Machine Learning.
- Key Components:
  - User App: Designed for users to easily browse services, book appointments, and receive personalized recommendations based on machine learning algorithms.
  - Admin PaneL: Implemented to oversee and manage user interactions, service provider operations, and ensure smooth functionality across the platform.
  - Rider App: Facilitated service providers (riders) in accepting and fulfilling service requests efficiently, ensuring timely service delivery.
  - **Service Provider App**: Enabled service providers to register, manage their service offerings, and interact with users through the platform, enhancing service transparency and customer satisfaction.

# • Audio and Image Encryption using Hybrid Cryptography

November 2021-April2022

Minor project, IOE, TU

- Overview: Using the AES and RSA algorithms, a desktop application was created to encrypt image and audio files to improve security against outside intrusions. We put an in-depth study on encryption methods and used tests and simulations to evaluate the algorithm's security and performance characteristics.
- o Technology: Tkinter, Python, AES, RSA, MYSQL

### • Online Food Delivery Website

May 2019

Competition project 2nd runner up

- Overview: For a competition, I developed an efficient online meal delivery website, showcasing strong problem-solving skills and technical proficiency.
- o Technology: JavaScript, HTML, CSS

#### CONFERENCE PRESENTATION

## Audio and Image Encryption using Hybrid Cryptography

Presented a paper on "Audio and Image Encryption using Hybrid Cryptography" at the 4th Science Engineering and Technology Conference (SET-2022) in Kathmandu, Nepal (paper not yet published).

## WORKSHOP ORGANIZED

## Workshop on Git, GitHub, and Open-Source Contribution:

o Organized a workshop focusing on Git, GitHub, and open-source contributions during my tenure as the secretary.

# SKILLS SUMMARY

Languages: Python, C, C++, Dart, JavaScript, HTML, CSS

Proficiencies: Cryptography, Machine Learning, Data Visualization, API Integration

Frameworks: Flutter, TensorFlow, Keras, Django

**Tools**: Git, MySQL, SQLite, Firebase, **Platforms**: Linux, Web, Windows, Android

Interpersonal skills: Leadership, Teamwork, Communication

## CERTIFICATIONS

- AWS Academy Graduate AWS Academy Cloud Foundations
- Completed course on Python 3 Ultimate Guide from Udemy
- Completed course on Programming for Everybody (Getting Started with Python) from Coursera
- Completed course on Arduino For Beginners: Master Arduino and C Programming from Udemy