

Sameep Dhakal

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Website

EDUCATION BACKGROUND

- **University of Missouri** Columbia, Missouri, USA
PhD Informatics August 2024 - Present
- **Advanced College of Engineering and Management, Tribhuvan University** Kathmandu, Nepal
Bachelor of Computer Engineering - (78.08 % (Rank 1 out of 48 students)) November 2017- July 2022
- **Sainik Awasiya Mahavidyalaya** Bhaktapur, Nepal
High School (Biological Science) - (81.90 %) June 2015- May 2017

EXPERIENCES

- **Digital Biology Lab , University of Missouri- Columbia** August 2024 - Present
Graduate Research Assistant (Advisor: Dr.Trupiti Joshi) Columbia, Missouri, USA
- **Processfeedback.org , Adhikari Lab at University of Missouri-St. Louis (UMSL)** June 2023 - August 2024
Software Developer (Remote Technical Research Internship) St. Louis, Missouri, USA
 - **Development:** Enhanced and expanded the software's capabilities to meet evolving requirements, resulting in improved functionality and a more user-friendly experience.
 - **Optimization:** Discover effective methods for obtaining feedback during the writing and coding journey, encompassing data analysis, data modification, and graphical enhancements to optimize the iterative process.
 - **Quality Assurance:** Identify and resolve bugs through thorough investigation, while actively researching and implementing potential solutions to eliminate these issues and improve overall system stability
- **Advanced College of Engineering and Management** November 2022 - July 2024
Instructor (Full-time) Kathmandu, Nepal
 - **Lab Instructor:** Revolutionized lab work with Process Feedback, enhancing learning and boosting pass rates significantly; recognized by Head of Department for innovation and impact, leading to department-wide adoption.
 - **Lecturer:** Inspired the next generation of engineers by teaching, training and overseeing the work of undergraduate students in the crucial areas of **Object Oriented Programming, Data Structure and Algorithms and Simulation and Modelling**, based on the rigorous curriculum of the Institute of Engineering
 - **Project Supervisor:** Catalyzed the next generation of computer engineers by coordinating multiple research projects that incorporate advanced machine learning algorithms, providing guidance and imparting essential concepts to 48 senior undergraduate students to help them complete their projects with greater impact and success
- **BP Eye Foundation - CHEERS Hospital** May 2022 - July 2022
Software Engineer (Full-time) Bhaktapur, Nepal
 - **Rehabilitation Management System:** Improved the quality of life for 100s of **Blind and deaf children** by developing a web application using the Django framework, streamlining processes and providing effective support
 - **Research:** Collaborated with a Public Health research team to explore potential methodologies aimed at improving healthcare accessibility in remote areas of Nepal.
- **Deerhold Nepal Pvt Ltd** March 2022 - April 2022
Fellow Kathmandu, Nepal
 - **Data Science:** Strengthened maternal and fetal health outcome by serving as an undergraduate fellow in **Data Analytics**, analyzing vital pregnancy data from hospitals in the USA and providing actionable insights to improve maternal and fetal health
- **PACE-Project Association for Computer and Electronics Advanced College** December 2018 - April 2022
Executive Member Kathmandu, Nepal
 - **Facilitation of skill development courses:** Empowered students with the skills and knowledge necessary for success in the modern world through comprehensive skill-building training, helping them to unlock their full potential.
 - **Assistance with project development:** Nurtured student potential by guiding project selection for tech festivals and inter-college competitions, providing a platform to showcase their skills and drive growth

PROJECTS

- **Rehabilitation Management System** May 2022- August 2022
CHEERS Hospital
 - **Functionalities:** Fully functional responsive website, Django Forms, Authentication and authorization, Classroom
 - **Tech:** Django,HTML,CSS
- **Intelligent Re-commerce Website** April 2021- April 2022
Major Project ,IOE, TU
 - **Functionalities:** Voice search, Image search, Real time virtual products try-on, Interactive Chat-bot
 - **Tech:** Tensorflow, Keras, NLTK, ReactJs, NodeJS, Django
- **Virtual eyewear try-on using facial recognition** December 2021- February 2022
Personal project
 - **Overview:** 64 point landmarks were detected and based on those points glasses are automatically placed on the correct place on the face when executed
 - **Tech:** Python,TensorFlow, Keras
- **Abstractive Text Summarization using Transformers** September 2020- March 2021
Minor project, IOE, TU
 - **Overview:** Research on various transformers for text summarization.
 - **Tech:** Python,Transformer , TensorFlow, Flask
- **Automated classification of E-commerce products using machine learning** September 2021- October 2021
Personal project
 - **Description:** The model could predict the class of E-commerce objects as shoe, clothes, watch and laptop based on the self created and processed data
 - **Tech:** Python, TensorFlow

CONFERENCE PRESENTATIONS

- **Intelligent Recommence Website**
"Presented a paper on an "Intelligent Recommence Website" at the 4th Science Engineering and Technology Conference (SET-2022) in Kathmandu, Nepal (paper not yet published)"

PUBLICATIONS

- **Algorithms Comparison in Drowsiness Detection**
"published a paper "Algorithms Comparison in Drowsiness Detection" in Journal of Advanced College of Engineering and Management "

CONFERENCES AND WORKSHOPS ORGANIZED

- **4th national SET conference**
Organized the 4th Annual National Science Engineering and Technology Conference-2022, and served as the **Master of Ceremony**
- **Revive the Potential of Your Assignments**
Organized the hour long international workshop to discuss the emerging issue of excessive AI usage in education to showcase a new, free tool called Process Feedback that enables educators to see their students' efforts and individual learning journeys.

SKILLS SUMMARY

- **Languages:** Python, C, C++,HTML, CSS, SQL
- **Proficiencies:** Computer Vision, Machine Learning, Natural Language Processing, Data Visualization
- **Frameworks:** Django, NLTK,TensorFlow, Keras
- **Tools:** GIT, MySQL, SQLite
- **Platforms:** Linux, Web, Windows
- **Interpersonal skills:** Leadership, Team-work, Teaching

HONORS AND AWARDS

- **Tribhuvan University Merit Based Scholarship**

Awarded merit-based scholarships for achieving the highest percentage in my Computer Engineering cohort in the 5th, 7th, and 8th semesters, worth \$1000 each semester

- **Letter of Appreciation**

Earned a Commendation for demonstrating dedication, sincerity, and diligence in my role as Red Color Captain at Sainik Awasiya Mahavidyalaya

CERTIFICATIONS

- Obtained certification in **HIPAA for Business Associates**
- Completed a course on **Neural Networks and Deep Learning** through Coursera
- Received a certificate in **Machine Learning and Artificial Intelligence** from Amity Future Academy

VOLUNTEER EXPERIENCE

- **Team Everest** May 2021 - June 2021
- *NGO in India*
 - **Creation of educational curriculum:** Contributed to the development of a dynamic English language curriculum designed to empower **underprivileged students** in remote parts of India and provide them with valuable language skills to enhance their future opportunities