# Sushant **Bhattarai**

## Research Assistant / PhD Student in Computer Science

- github.com/sushantbhattaraii in linkedin.com/in/sushant-bhattarai
- Kent, OH, 44240 i USA

# PUBLICATIONS

Bhattarai, S., Bhurtel, Y., KC, B., Subedi, S. (2022). "English Sign Gesture Recognition using CNN". Proceedings of the 12th IOE Graduate Conference (pp. 1825-1831). Kathmandu: Institute of Engineering, Thapathali Campus. http://conference.ioe.edu.np/publications/ioegc12/IOEGC-12-242-12354.pdf



# **EDUCATION**

#### August 2024

#### PhD in Computer Science | Kent State University, Оню, USA

#### Present

- > Major Courseworks: Design & Analysis of Algorithms, Foundation of Deep Learning and AI, Computational Geometry, Data Mining Techniques
- > Current GPA (4.0)

KSU, OH, USA

#### November 2017

## Bachelor's in Computer Engineering | Himalaya College of Engineering (Tribhuvan University), KATHMANDU, Nepal

#### April 2022

- > Major Courseworks: Data Structures and Algorithms, Object Oriented Programming, Discrete Mathematics, Probability and Statistics, Theory of Computation, Computer Organization & Architecture, Artificial Intelligence, Computer Networks, Computer Graphics, Database Management System, Operating Systems, Software Engineering
- > GPA: 80.81%

BE, TU, Nepal



# Research Experience / Projects Completed

## May 2021

## English Sign Gesture Recognition using CNN, UNDERGRADUATE THESIS, Status = Complete

#### April 2022

- > Used Python libraries OpenCV and Tensorflow, designed the Convolutional Neural Network model architecture and trained the model to recognize English Sign language hand gesture alphabets from
- > Published the paper and presented a poster in Institute of Engineering Graduate Conference, Nepal (October 2022)
- > Supervisor: Sudarshan Subedi

Link: https://github.com/sushant-bhattarai/sign-language-recognition-major-project

## September 2020

## Colleges Recommendation System using Collaborative Filtering, UNDERGRADUATE PROJECT, Status = Complete

#### March 2021

- > Built a website using Laravel framework that recommends high schools to users according to their interests and consequently users can apply to them.
- > Supervisor: Himal Chand Thapa Link: https://github.com/sushant-bhattarai/commoncollegeapplication

# I Work Experience

#### August 2024

#### Present

#### Graduate Research Assistant, COMPUTER SCIENCE, KENT STATE UNIVERSITY, Ohio, USA

- Currently working on designing algorithms on prediction of resource requests in distributed directo-
- > Performing literature reviews of papers related to distributed algorithms
- > Supervisor : Dr. Gokarna Sharma

## May 2022

## Assistant Lecturer, HIMALAYA COLLEGE OF ENGINEERING, TRIBHUVAN UNIVERSITY, Kathmandu, Nepal

## July 2024

- > Teaching the group of 100 undergraduate students in Computer, Electronics, Communication and Information engineering, 3 courses: 'EX603 - Computer Graphics', 'SH553 - Numerical methods' and 'CSC109 - Introduction to IT'.
- > Conducting related lab tasks on various subjects and also assisting fellow lecturers during the laboratory period.
- > Supervisor: Ashok GM

## November 2022

## July 2024

#### Part-time Lecturer, Sagarmatha Engineeering College, Tribhuvan University, Kathmandu, Nepal

- > Teaching the course 'EX603 Computer Graphics' to the group of 100 undergraduate students studying Electronics, Communication, and Information engineering.
- > Conducting related lab tasks of the specific teaching subject.
- > Supervisor : Bharat Bhatta

## **X** Skills

**Programming** Python libraries like OpenCV, keras, tensorFlow, NLTK, spaCy, pyTorch, numPy, and pandas

Advanced skills in C and C++

Intermediate skills in PHP and Laravel Framework

**Machine Learning** CNN, LSTM, RNN, GAN

> Language English, Nepali

Hobbies Singing, Travelling, Soccer

# Awards and Scholarships

#### Graduate Research Assistantship - PhD in Computer Science

Kent State University, Ohio, USA

August 2024 - Present

## Full Scholarship - B.E. in Computer Engineering

Institute of Engineering, Tribhuvan University

Nov 2017 - Apr 2022



## LEADERSHIP & VOLUNTEERING

## Member - Himalaya Electronics and Computer Club (HECC)