

Binaya Dhakal

AI, ML, and Software Engineer

✉ binaydhakal35@gmail.com

📍 West Haven, CT

☎ +1 475-201-5355

🌐 @binaya-d-416512208

🔗 binaydhakal

📧 @binaydhakal35

TECHNICAL SKILLS

Programming Languages	Python, R, Ruby, Javascript
Python Packages	Pytorch, Tensorflow, Scikit-Learn, Pandas, Numpy, Matplotlib, Regex, Jupyter
Software Development	Ruby on Rails, Django, React, ReactNative, Next
Database	MySQL, PostgreSQL, MongoDB
Miscellaneous	Git, Github, Bash, LATEX, Jira, Linux, AWS, Sever Setup and Hosting, Heroku, Firebase, App Store Setup, Google Play Setup, Google Cloud Steup, In App Purchase

EDUCATION

Master's in Data Science	<i>Aug. 2024 - Present</i>
University Of New Haven	<i>West Haven, CI, US</i>
Relevant Courses: Python, Artificial Intelligence, Machine Learning, Deep Learning, Bioinformatics, Natural Language Processing, Distributed and Scalable Data Engineering	
Bachelor in Computer Engineering	<i>Dec. 2016 - Jan. 2021</i>
Western Regional Campus (WRC)	<i>Pokhara, Nepal</i>
Relevant Courses: Artificial Intelligence, Data Structures and Algorithms, Algorithm and Complexity, Software Engineering, Probability and Statistics, Machine Learning, Speech and Language Processing, C, C++	

PROFESSIONAL EXPERIENCE

University of New Haven	West Haven, CT, USA
<i>Research Assistant</i>	<i>Aug 2024 - present</i>
<ul style="list-style-type: none">Working on computational biological and business modeling data and trying to reduce the data's dimensions using dimensional reduction techniques, such as Autoencoders, VAE, etc., to perform downstream tasks for biological and e-commerce data.	
Danphe Software Labs	Kathmandu, Nepal
<i>Senior Software Engineer</i>	<i>May 2021 - May 2024</i>
<ul style="list-style-type: none">Worked as Full-stack Engineer(Web, Mobile, and Backend Developer) to create feature for MLM companies.Worked as a software engineer to elevate the human experience at the workplace by questionnaires based on events of the company, and providing various metrics through the graph.Developed System for companies like Fluid to handle millions of data and mitigating cyber attacks and patterns of cyber attacks using Support Vector Machines(SVM), Deep Learning Models like CNN, RNN (Conventional and Recurrent Neural Networks), and NLP techniques like Entity Recognition and Text analysis	

PUBLICATION

- **Effects of Sudarshan Kriya Yoga (SKY) on the stress and self-esteem of medical doctors :** Worked with Neuro medical researcher on analyzing the benefits of SKY breathing technique in patients. (Sentiment Analysis implemented to analyze different views of doctors) doi: 10.4103/0973-6131.105935
- **Fracture Detection With Transformer (submitted):** Used transformer based DETR model to predict the bounding box around the fracture.

ARTICLES

- **Markov Decision Process:** Science of decision making and basic principle of Reinforcement Learning in the field of Machine Learning.
- **Activation Function:** Key properties of how a Neural Network operates are explained here.
- **DETR:** Detection Transformer, a revolution in the field of Computer Vision, especially in healthcare and NLP.

HONORS AND AWARDS

- **Provost's Research Assistant Scholarship:** 75% scholarship with paid stipend awarded. *2024-2026*
- **Tribhuwan University Merit-based scholarship (3x):** \$200 worth scholarship awarded for securing the highest percentage in the Computer Engineering cohort (3/7 semesters) *2016-2021*
- **CTF (Catch The Flag) program winner:** Part of the winning team in Catch The Flag competition organized by Western Regional Campus, IOE. *Nov 2018*
- **National Level Rubik's Cube Solver:** Regional Champion (National 2nd) in National level Rubik's cube competition organized by World Cube Association (WCA) *2018 - Present*
- **Student Of The Year:** Secured the highest percentage in the history of Notre-Dame Higher Secondary School, Bandipur, Nepal with excellence in Physics, Mathematics and Chemistry *2014 - 2016*

SOCIETIES AND EXPERIENCE

- **Member of i-CES(Innovative Computer Engineering Societies):** Participated in different coding competitions and attended programs conducted by i-CES *2017-2021*
- **Member of Robotics Club, WRC):** Organized different robotics programs and competitions. *2017-2021*
- **Project Manager(Bachelor Final Year Project):** Designed the entire final-year project, Researched and used the emerging tech 'Blockchain' with AI and Designed the entire database model in MongoDB and Blockchain and trained with TF IDF model for security. *2020-2021*