

Yash Girishbhai Amethiya

+1(807)358-4374 | yashamethiya2001@gmail.com | [linkedin.com/in/yash-ga](https://www.linkedin.com/in/yash-ga) | yash-amethiya-portfolio.vercel.app

Education:

Master of Science in Computer Science

May 2024

Lakehead University, Thunder Bay, Ontario, Canada

Bachelor of Technology, Computer Engineering

July 2018 - May 2022

Dharmsinh Desai University, Nadiad, Gujarat, India

Experience:

Marker

January 2024 – Present

Lakehead University, Thunder Bay, ON

- Assisted in organizing and conducting C programming labs for a diverse group of 45 undergraduate students, resulting in improved understanding and application of coding concepts.
- Led C++ programming labs for approximately 70 undergrad students, offering individualized support to clarify doubts and enhance their coding abilities.
- Graded and provided feedback on lab assignments and exams for a class of 45 students, ensuring accuracy and fairness in assessment.

Research & Project Intern

December 2021 – April 2022

Institute for Plasma Research, Gandhinagar, Gujarat, India

- Led a team of 4 to develop a project named "Deep Learning for Object Detection in a live video feed".
- Collected and processed approximately 15,000 images through web scraping and utilized Labelimg for accurate labelling, contributing to the development of a comprehensive image dataset for research purposes.
- Achieved accuracies above 95% by Transfer learning from deep neural networks like MobileNet, ResNet, Inception, and VGG for image classification and did object detection using TensorFlow.
- Integrated 4 different models into a web application using Django Framework resulting in a secured platform for live object detection.

Projects:

Medical Image Captioning on Chest X-Rays (Skills: Python, LSTM, CheXNET Model)

- Extracted the information from Indiana University's dataset, consisting of almost 7500 images and 4000 reports.
- Organized the unbalanced data by performing data pre-processing tasks like up-sampling and down-sampling.
- Captured the semantic meaning and relationship between the words by using GloVe vectors with 300 dimensions.
- Fine-tuned the CheXNET Model for encoding and achieved around 90% accuracy and a loss of less than 0.01.

Currency Recognizer (Skills: Research, Computer Vision, CONGAS, SIFT, Data Collection, Python)

- Collaborated on a project to replicate, reproduce and enhance a research paper.
- Led the creation of a diverse dataset (300 images per US banknote) with varied conditions for robust model training and evaluation.
- Developed a fine-grained currency recognizer for the visually impaired using CONGAS, SIFT-based features and a pre-filtering classifier using MobileNet.

Research Paper:

Comparative Analysis of Breast Cancer Detection Using Machine Learning and Biosensors

Publication: **Elsevier**, Journal: **Intelligent Medicine**

Published: October 2021

Authors: Yash Amethiya, Prince Pipariya, Shlok Patel, Manan Shah

Skills:

- Programming: C, C++, C#, Java, Python, JavaScript
- Technologies: Machine Learning, Data Analysis & Visualisation, Deep Learning
- Databases: SQL, MySQL, MongoDB, SQLite3
- Familiar: Angular, Node.js, Express.js, React.js, Next.js, D3.js, socket.io, JSP, AWS, GCP, OAuth
- Tools: Git, Postman, Labelme, Labelimg, Excel, Powerpoint presentation, Tableau

Volunteering:

- Student Ambassador** for **C2U Expo-2023** Community-College-University Exposition at **Lakehead University**.
- International Orientation Volunteer** for **Lakehead University** for the Winter, Spring, Fall - 2023 and Winter - 2024.