# Vipin Gautam

Indian Institute of Technology, Goa

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#### Education

M.Tech, Computer Science Engineering, Indian Institute of Technology Goa	<b>7.88</b> CPI	2021-Present
Masters in Computer Applications (MCA), Indira Gandhi National Open University	67.04 %	2018-2021
Post Graduate Diploma, Computer Applications, Indira Gandhi National Open University	69.40 %	2018-2019

### **M.tech Thesis**

Thesis Topic: Intelligent Video Processing Systems

Supervisor: Dr. Sharad Sinha, IIT Goa

Study involves design and implementation of real-time suspect tracking across multiple camera feeds, where region of interest is identified in one of the feed and suspect is tracked across multiple non overlapping cameras.

### **Projects**

**Facial Keypoints Detection**,

[December 2022]

In this work I build a CNN to detect keypoints in the face, For training Kaggle Dataset has been used and Keras has been used to build CNN **Machine Learning Projects**, [May 2022]

Implemented multinomial Naive Bayes classifier on '20 Newsgroups Dataset'.

Implemented Logistic Regression from scratch with Cross-entropy and LMS loss

Implemented K-Means for clustering from scratch

Perceptron Algrorithm and Support Vector Machine

Handwritten Alphabets Classifier,

[January 2022]

Implemented Naive Bayes Classifier with Naive Bayes assumption from scratch to solve Handwritten Alphabet classification

LZW Compression and Decompression,

[December 2021]

[November 2021]

Implemented Lempel-Ziv-Welch algorithm for image compression and decompression

IIT Goa Connect Me,

Developed MEAN-Stack application for IIT Goa social media

Users with IIT Goa email could only access.

### Experience

### Teaching Assistant CS530, Fundamentals of Machine Learning

[January 2023 - Current]

- Under the guidance of Dr. Satyanath Bhat, IIT Goa.
- · Responsibilities included grading quizzes, assignments, Conducting Viva, invigilation and maintaining attendance.

### Teaching Assistant CS561, Probability and Statistics

[Aug 2022 - Dec 2022]

- Under the guidance of Dr. Satyanath Bhat, IIT Goa.
- · Responsibilities included grading quizzes, assignments, Conducting Viva, invigilation and maintaining attendance.

# Volunteer, National Supercomputing Mission workshop at IIT Goa

[July 2022 - July 2022]

- Under the guidance of Dr. Sharad Sinha, IIT Goa.
- · Responsibilties included making sure smooth conduct of workshop.

### Teaching Assistant CS222, Algorithm Design

[January 2022 - May 2022]

- Under the guidance of Dr. Rahul S, IIT Goa.
- Responsibilities included conducting online labs, grading quizzes and assignments.

## $Lead, Planning \ and \ forecasting, Concentrix$

[January 2015 - June 2021]

• Responsible for the forecast and headcount planning for different projects.

### **Skills**

Programming Languages C/C++, Python, Java, JavaScript, TypeScript, HTML, CSS, Springboot, MySQL

Frameworks Scikit-learn, PyTorch, OpenCV, Keras, Numpy, Pandas, Angular12

Software Skills PyCharm, Anaconda, Visual Studio Code, IntelliJ Idea, Multiprocessing

Relevant Coursework Fundamentals of Machine Learning, Probability and Statistics, Fundamentals of Computing Systems Design, Deep

Learning for Computer Vision, Randomized Algorithms and Information Security.

### **Certifications**

- Supervised Machine Learning: Regression and Classification, DeepLearning.AI, Stanford University, By Andrew Ng, September 2022
- Neural Networks and Deep Learning, DeepLearning.AI, By Andrew Ng, September 2022
- Applied Accelerated Artificial Intelligence, Certificate of Appreciation, C-DAC, May 2022
- Introduction to Data Science in Python, University of Michigan, By Professor Christopher Brooks on Coursera, January 2022
- Certificate of Completion, Angular- The Complete Guide, By Maximilian Schwarzmüller on Udemy, December 2021
- Fundamentals of Accelerated Computing with CUDA C/C++. Nvidia, October 2021

# **Achievements**

- Qualified Graduate Aptitude Test in Engineering(GATE CSE 2021) with 97 percentile amongst 101922 candidates.
- Secured 1st Position in MCA

### **Extracurriculars & Hobbies**

Playing Badminton, Trekking and Reading biographies occasionally.