# Vipin Gautam

Indian Institute of Technology, Goa

**2nd Year Postgraduate**, Computer Science Engineering
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## Education

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|---|---|---|
| **M.Tech, Computer Science Engineering**, Indian Institute of Technology Goa | **7.88** 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 |
| **BA**, University of Delhi | **50** % | 2017 |

## 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]
Implemented Lempel–Ziv–Welch algorithm for image compression and decompression
**IIT Goa Connect Me**, [November 2021]
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.
- Responsiblities 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

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|---|---|
| **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.