

# Saif Gazali



Website



Github

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(Preferred)

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## EDUCATION

### UNIVERSITÉ DE MONTRÉAL MASTER OF COMPUTER SCIENCE

Sep 2022 - Present | Montréal  
Département d'informatique et de  
recherche opérationnelle  
GPA: 4.15/4.3

### VIT UNIVERSITY

BACHELOR OF COMPUTER SCIENCE  
Sep 2016 - May 2020 | Chennai  
Department of Computer Science  
CGPA: 9.07/10.0

## SKILLS

Python • Java • SQL  
Tensorflow • Pytorch • Pandas •  
Huggingface

## DEPLOYMENT

Flask • Heroku • Docker

## LANGUAGES

French (B1 Level)  
English (C1 Level)

## COURSEWORK

### GRADUATE

Fundamentals of Machine Learning (A)  
Data Science (A+)  
Representation Learning (Winter 2023)  
Advanced Machine Learning Projects  
(Winter 2023)

### UNDERGRADUATE

Machine Learning  
Data Visualization  
Data Structures and Algorithms  
Database Management System  
Statistics  
Linear Algebra

## ACHIEVEMENTS

### TECHNICAL ANSWERS TO REAL WORLD PROBLEM

Won 1st prize in the VIT Chennai's TARP  
Hackathon for making a smart waste  
disposal system.

### KAGGLE COMPETITIONS

Ranked 2nd in the **Text Sentiment  
classification** challenge and 14th in the  
**MNIST classification** challenge.

## PROFESSIONAL EXPERIENCE

### SIEMENS EDA | SOFTWARE ENGINEER

July 2020 - June 2022

- Improved common actions of the tool using the concept of Multithreading, Java thread pool, optimal resource sharing and caching by around 30-40% on large scale customer projects.
- Key achievement:** Received the **best performer award** for the year 2021 for optimizing the topology software and making it more responsive for customers such as Boeing and Airbus.

### SIEMENS EDA | SOFTWARE ENGINEER INTERN

December 2019 - June 2020

- Optimized the SQL queries in order to have faster lookups and getting the data from the DB efficiently. Improved the performance and the responsiveness of the system by around 20% for certain queries.

## PROJECTS

### IMAGE-TO-IMAGE TRANSLATION USING PIX2PIX GAN

| Blog

- Implemented the Pix2Pix Gan model to translate Satellite images to Google map images achieving an average Frechet Inception distance of 110.

### TEXT SUMMARIZATION FOR CNN-DAILYMIL DATASET

- CNN-Daily mail dataset contains around 300k news article. Implemented state of the art models like GPT-2, BART, T5 and Pegasus to create summaries for the news articles. Bleu and Rouge metric were used to evaluate the generated summaries. GPT-2 outperformed other models achieving a rouge-1 score of 0.18.

### IMAGE CAPTIONING WITH VGG16-LSTM MODEL FOR FLICKR-8K IMAGES | Blog

- Implemented a model which generates descriptions for an image using VGG16 as an encoder model to extract features from the image achieving a loss value of 1.5987 and used a LSTM model as a decoder to generate the captions for the image using Beam search as well as traditional Greedy search algorithm.

### MNIST HANDWRITTEN DIGITS GENERATION USING DIFFERENT GANS AND ENCODERS | Blog

- Generated MNIST Handwritten digits using GANS such as Semi-Supervised GAN, Auxiliary GAN, Conditional GAN and DCGAN. Also implemented the Convolutional and the Variational Encoder to generate the same.

## PUBLICATIONS

### CUSTOM BLOCK CHAIN BASED CYBER PHYSICAL SYSTEM FOR SOLID WASTE MANAGEMENT |

Paper

### FORECASTING ELECTION DATA USING REGRESSION MODELS AND SENTIMENTAL ANALYSIS | Paper