SUMIT VAISE

2019- PRESENT:
MENG (ELECTRICAL AND COMPUTER ENG.)
CONCORDIA UNIVERSITY, MONTREAL, QA,CA

2015-2018:
COMPUTER VISION ENGINEER (4 YEARS)

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PROFILE

Computer vision enthusiast with hands-on experience of 4 years in developing image processing and deep learning-based projects for desktop and development boards.
Ongoing Masters with a focus towards image processing and deep learning.

LINKEDIN

https://www.linkedin.com/in/sumit-vaise-6644514b

GITHUB

github.com/Sumit1673

KAGGLE

https://www.kaggle.com/sumitv29

SKILLS

- Computer Vision, Deep learning
- CNN, RNN
- Python, C++, MATLAB, Shell scripting
- Qt, Flask, OpenCV, Docker, Tensorflow, PyTorch, Sklearn
- Git, SVN
- AWS

INTEREST

- Badminton.
- Travelling.

EDUCATION

- **MENG ELECTRICAL AND COMPUTER ENGINEERING**

CONCORDIA UNIVERSITY | JAN 2019 - PRESENT | MONTREAL, QC,CA | GPA: 3.1

CORE COURSES

- Neural Networks, Pattern Recognition, Programming on cloud, medical image processing

- **PG DIPLOMA IN ELECTRONICS PRODUCT DESIGNING**

CDAC | NOV 2013 - MAY 2014 | HYDERABAD, INDIA. 80%.

- Achieved highest marks in all subjects.(Linux device drivers, PCB desinging, FPGA Software design, Networking and Software development in Embedded Systems

- **BTECH IN ELECTRONICS AND COMMUNICATION**

UTTAR PRADESH TECHNICAL UNIVERSITY | AUG 2008 - MAY 2012 | GHAZIABAD,U.P. INDIA

EXPERIENCE

RESEARCH ASSISTANT
CONCORDIA UNIVERSITY | JULY-2019 - PRESENT | MONTREAL, QC, CA

- Project requirements gathering and planning
- Developed a GUI based Speech Recognition system for desktop using Qt and Python. Utilized Google Speech API's for recognition.

PYTHON TRAINER
MONTREAL NETWORKS | FRB-2019 - MAR 2019 | MONTREAL, QC,CA

- Designed and documented the curriculum for the course.
- Trained students and working professional on Python basics programming.

COMPUTER VISION ENGINEEER
ROBERT BOSCH ENG. AND BUSINESS SOLUTION | SEP 2017 - DEC 2018 | BANGALORE, INDIA

- Develop prototypes for the new research papers in Python.
- Responsible for collecting dataset by creating the environment for particular application and mounting cameras all over the place for e.g. airport scene.
- Collaborate with the research team in Germany to contribute in the Autonomous driving project by visualizing(Matplotlib or Seaborn) and running various dataset.
- Management of project like weekly project updates, arrange meetings.
- Present new techniques that can be utilized on the ongoing projects.
- Responsible for creating fun events for the team on birthday's, or festivals.

SOFTWARE ENGINEER
LNT TECHNOLOGY SERVICES | JAN 2015 - AUG 2017 | MYSORE, INDIA

- Project proposal, project planning and leading a team.
- Project were under Scrum methodology..
- Collaborate with other domain teams like embedded systems which require assistance on image processing.
- Learn and adapt new technologies or hardware products like different cameras Thermal Camera, IP Camera to exceed the capabilities of our application.
- Responsible for handling any Linux based development independent of platforms.

INDUSTRIAL PROJECTS

2017-2018

DATASET PREPARATION AND VISUALIZATION

- Utilized pickled data and converted it from densely labelled to sparsely labelled using Python helped in reduced time of training upto 20% with the same performance.
- Visualize dataset using Matplotlib and Seaborne.

PERSON RE-IDENTIFICATION

- Collected dataset and trained the Siamese Network using Tensorflow.
- Developed a GUI using to Qt and C++ for the complete workflow starting from data gathering to visualization to network inferencing.

2015-2017

PERSON DETECTION USING THERMAL CAMERA

- Project planning, project execution and projected delievery.
- Created a simulated environment of an elevator for dataset collection with thermal camera and used thresholding techniques to identify the person.

BOAT, DOCK AND HUMAN DETECTION IN A MARINE ENVIRONMENT

- Project is a multiple object detection with CNN. On detection an LED is ON. The dataset was provided by the client. The dataset was manually annotated using LabelImg tool.
- The application was ported on NVIDIA Jetson TK-1 board which has a camera mounted on it. The board was programmed to run the application on startup and grab images from the camera and send for prediction.

RADIOGRAPHIC IMAGE STITCHING

- Stitch two x-ray images and develop a single complete image for complete diagnosis of the body.
- Utilized non-linear image processing algorithms to align the parts of the image w.r.t the other image.

ACADEMIC PROJECTS(2019-PRESENT)

IMAGE DENOSING USING AUTOENCODER

- Objective is to understand autoencoders and how they can be used as a pre-processing stage in any DNN.
- Implemented encoder and decoder network using Tensorflow.
- Created a noisy MNIST handwritten dataset and fed to the model.

CHARACTER LEVEL LANGUAGE MODELLING USING SEQUENTIAL MODELS

- A RNN model is trained with list of dinaosaur names to generate new names.
- Algorithm learns the different name patterns, and randomly generate new names.

NEURAL MACHINE TRANSLATION WITH ATTENTION MODEL

- Created a Neural Machine Translation (NMT) model to translate human-readable dates ("25th of June, 2009") into machine-readable dates ("2009-06-25").

AWARDS

- Star of the month for developing and porting computer vision application on a RENESAS board.
- Founded IEEE student society in college.