

Khushkumar Patel

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Summary

- Industry experience with an internship using deep learning frameworks to solve the real-world problems using Python
- Good knowledge of machine learning libraries and data science tools
- Experience with end to end pipeline creation using Flask APIs

Technical Skills

- Programming** [Advanced]: Python, Java, J2EE, C/C++ , Shell Scripting
- DL Frameworks** [Intermediate]: TensorFlow, PyTorch, OpenCV
- ML Libraries** [Advanced]: scikit-learn, Seaborn, pandas, NumPy, Matplotlib
- Data Science Tools** [Advanced]: Jupyter Notebook, Spyder, Weka, RapidMiner Studio, Canopy, MatLab
- Cloud** [Intermediate]: IBM Cloud, Amazon Web Services, Google Cloud Platform
- Databases** [Intermediate]: NoSQL, MySQL, IBM DB2, MS SQL
- Web** [Beginner]: HTML/HTML5, CSS, JavaScript, Bootstrap, UI/UX Design
- OS** [Advanced]: Linux (Ubuntu), Windows
- IoT** [Beginner]: Raspberry Pi, Arduino, Sensors, Micro Controller
- Other** [Intermediate]: GitHub, LaTeX, Digital Media

Education

Master of Applied Computing 2019 - Present
(Stream: Artificial Intelligence)
University of Windsor, Windsor, ON

Bachelor of Technology in Computer Science and Engineering 2015 - 2019
(Specialization: Cloud Based Applications) in association with IBM
Ganpat University, Ahmedabad, India

Computer Vision Nanodegree | Udacity 2019

o CNN Architectures	o YOLO	o Attention Mechanism
o Feature Vectors	o RNNs and LSTM	o Image Captioning

Deep Learning Nanodegree | Udacity 2019 - 2020

o Gradient Descent	o DCGANs	o Autoencoders
o Neural Networks	o Pix2Pix	o Word Embeddings
o Transfer Learning	o AWS Sagemaker	o Word2Vec

Data Analyst Nanodegree | Udacity 2020 - Present

o SQL	o Data Visualization	o Data Exploration
o Data Wrangling	o Data Cleaning	o Probability and Statistics

Experience

Machine Learning Engineer May 2019 - Aug 2019
DataThinker AI, Ahmedabad, India

- Project: DentalX | Deep Learning (Computer Vision)
- Developed visually intelligent Dental X-Ray diagnosis to detect the dental diseases and provide recommendations to the dentist using deep learning and object detection with Flask APIs

Machine Learning Intern Dec 2018 - Apr 2019

Azilen Technologies (AI Unit: Intellica.AI) Ahmedabad, India

- Project: SpectoMETER | Deep Learning (Computer Vision)
- Used Convolutional Neural Network and Object Detection techniques using TensorFlow and OpenCV frameworks to detect advertisement logos in live sports events and generate statistics for brand impact

Projects**Generate Faces | Computer Vision (GAN)**

Dec 2019

- Concepts: GAN, DCGAN, Pix2Pix and CycleGAN
- Generated faces from a pair of multi-layer neural networks generator and discriminator that compete against each other until one learns to generate realistic images of faces using CelebFaces Attributes (CelebA) dataset

Automatic Image Captioning | Computer Vision & NLP

Nov 2019

- Concepts: Faster R-CNN, YOLO, Single Shot Detection (SSD), LSTM
- Combined CNN and RNN knowledge to build a deep learning model produces captions for given input image. CNN transforms an input image into a set of features and RNN that turns features into the rich language

TV Scripts Generation | NLP

Nov 2019

- Concepts: LSTM, Word2Vec and Sentiment Prediction
- Built own Recurrent Networks and Long Short-Term Memory Networks with PyTorch to perform sentiment analysis and generate new text and used RNN to generate new text that resembles a training set of TV scripts

Facial Keypoint Detection | Computer Vision

Oct 2019

- Concepts: Convolutional Neural Network, Image Segmentation
- Used image processing & CNN techniques to detect faces in an image and find positions of facial keypoints like eyes, nose and mouth on a face

Patent**An Angularly and Laterally Displaceable Seat for Vehicles**

May 2016

- Patent Application No.: 3548/MUM/2014
- Publication Authority: Intellectual Property India

Research**Anomaly Detection in Radiography Images**

Jan 2020 - Present

- Detecting the anomalies from X-ray radiography images using PyTorch transfer learning technique on densenet169 and designed deep convolutional neural network on Musculoskeletal Radiographs (MURA) dataset.

Cataract Classification using Inception, VGGNet, ResNet

Sep 2019 - Dec 2019

- Investigated the performance of three different models, such as VGGNet, ResNet, and Inception on the same dataset, which contains the four classes for cataract detection and comparison of the result for the same models.

Scholarships

- Bertelsmann Technology Scholarship 2019
- Facebook Developer Circles Training Courses 2019
- Facebook Secure and Private AI Scholarship 2019
- Intel Edge AI Scholarship 2019
- Facebook PyTorch Scholarship 2018

Honours

- Facebook Developer Circle Facilitator for Deep Learning Study Group
- Google Facilitator for Applied CS Skills
- Honor Medal in I-SWEEEP International Science Fair at Houston, TX
- IGNITE Award by Dr. APJ Abdul Kalam (Former President of India)
- Director General Award 2018 from Ganpat University

Certifications

- DataCamp Intermediate Python
- DataCamp Python Data Science Toolbox
- Scientific Computing using Python by FOSSEE, IIT Bombay
- IBM Cloud Application Developer 2018 - Mastery Award
- Google Applied CS with Android

IBM Badges

- Deep Learning
- Machine Learning with Python
- Applied Data Science with Python
- Data Science Foundations
- Big Data Foundations