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Khush Patel

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Summary

- Industry experience to build, train and deploy machine learning models using modern frameworks such as TensorFlow, PyTorch and scikit-learn.
- Worked on several real-world projects with advanced neural network and creating end-to-end pipeline to deploy model using Flask API.
- Udacity Computer Vision, Deep Learning and Data Analyst Nanodegree holder

Technical Skills

- **Programming Languages:** Python, Java, J2EE, C/C++, Shell Scripting
- **Deep Learning Frameworks:** TensorFlow, PyTorch, OpenCV
- **Machine Learning Libraries:** scikit-learn, Seaborn, pandas, NumPy, Matplotlib
- **Data Science Tools:** Jupyter Notebook, Spyder, Weka, RapidMiner Studio, Canopy, MatLab
- **Cloud Services:** IBM Cloud, Amazon Web Services, Google Cloud Platform
- **Databases:** NoSQL, MySQL, IBM DB2, MS SQL
- **Web Technologies:** HTML/HTML5, CSS, JavaScript, BootStrap, UI/UX Design
- **Operating Systems:** Linux (Ubuntu), Windows
- **Others:** GitHub, LaTeX, Raspberry Pi, Arduino, IoT Sensors

Education

Master of Applied Computing — Sep 2019 - Present
University of Windsor — Windsor, Ontario
- Stream: Artificial Intelligence

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

Computer Vision Nanodegree | Udacity — Aug 2019 - Nov 2019
- CNN Architectures
- Feature Vectors
- YOLO
- RNNs and LSTM
- Attention Mechanism
- Image Captioning

Deep Learning Nanodegree | Udacity — Sep 2019 - Jan 2020
- Gradient Descent
- Neural Networks
- Transfer Learning
- DCGANs
- Pix2Pix
- AWS Sagemaker
- Autoencoders
- Word Embeddings
- Word2Vec

Data Analyst Nanodegree | Udacity — Mar 2020 - Present
- SQL
- Data Wrangling
- Data Visualization
- Data Cleaning
- Data Exploration
- 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 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, 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.

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.

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.

WeRateDogs Twitter Analysis | Wrangle and Analyze Data May 2020
- Concepts: Twitter APIs, JSON, Data Wrangling
- Data gathered from WeRateDogs twitter handle using twitter APIs and performed data cleaning operations. Assessed data visually and programmatically for quality and tidiness and wrangled data to produce insights.

No Show Appointment | Exploratory Data Analysis Apr 2020
- Concepts: Data Pre-processing, Data Analysis, Data Visualization
- The dataset contains information of 100k medical appointments in Brazil and focused on the question of whether or not patients show up for their appointment using data-preprocessing and cleaning, data analysis and data visualization.

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 - Apr 2020
- 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

- Facebook PyTorch Scholarship — Oct 2018
- Facebook Secure and Private AI Scholarship — May 2019
- Intel Edge AI Scholarship — Dec 2019
- Bertelsmann Technology Scholarship — Nov 2019
- Facebook Developer Circles Training Courses — Aug 2019

Certifications

- DataCamp Python Data Science Toolbox — Jan 2020
- DataCamp Intermediate Python — Jan 2020
- Scientific Computing using Python by FOSSEE, IIT Bombay — Mar 2017
- IBM Cloud Application Developer 2018 - Mastery Award — May 2018
- Google Applied CS with Android — Aug 2017

IBM Badges

- Deep Learning — Jan 2019
- Machine Learning with Python — Nov 2018
- Applied Data Science with Python — Nov 2018
- Data Science Foundations — Dec 2018
- Big Data Foundations — Mar 2020

Honours

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