

# Mohammad Sadil Khan

Computer Vision Research Intern

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📞 Sadil Khan

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## Summary

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Aspiring Computer Vision researcher with experiences in delivering valuable insights via data analytics and advanced data-driven methods. Proficient in building statistical models using Python and R. My research interests are Computer Vision, Deep Learning, Statistical Learning Theory and Explainable AI.

## EDUCATION

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**Katholieke Universiteit Leuven**

*Erasmus Exchange*

**Leuven, Belgium**

*Sept 2021-Feb 2022*

**University Jean Monnet**

*Masters in Machine Learning and Data Mining*

**Saint-Etienne, France**

*2020-2022*

**Chennai Mathematical Institute**

*Masters(M1) in Data Science: CGPA 8.69/10*

**Siruseri, India**

*2019-2021*

**Ramakrishna Mission Residential College**

*Bachelors in Mathematics*

**Kolkata, India**

*2016-2019*

## EXPERIENCE

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**Laboratoire Hubert Curien**

*Deep Learning Research Intern*

**Saint-Etienne, France**

*Apr 2021 - Aug 2021*

- **Project** : Detector-Encoder Autoencoders for unsupervised decomposition into visual parts.
- Developed DAE (Detector-Encoder AutoEncoder), a novel autoencoder for reconstructing images.
- Optimized SSD with GIOU loss.
- Designed AutoLabelMe, a GUI in Python for automatic Image Annotation. It's suitable for researchers and practitioners to automatically annotate objects in images for object detection.

**Accenture Digital**

*Data Analyst Intern*

**India**

*May 2020 - Jul 2020*

- **Project** : Intelligent Inventory Planning
- Automatic Forecast Hedging to cover for Demand Gaps using AI
- Looking at Multiple indicators in past (Promo indicator, inventory situation, in transit, lead time volatility, demand volatility) referencing against future forecast hedging requirement
- Using this hedging to trigger additional replenishment quantity
- Ensuring the replenishment in transit to be accounted while the additional quantity is planned
- Use of Explainable AI algorithm for complete visibility of decision making and to be able to use WHAT-IF tool in Google Cloud Platform

**AnalyticsCosm**

*Data Science Intern*

**India**

*Jun 2019 - Jul 2019*

- Created an Instagram Bot to scraped large scale data from Instagram users containing account info i.e followers, followings, activity, bio, etc. Implemented XgBoost algorithm to predict the score of a batsman against another team as well as the wicket of bowlers.

**Myanalyticsmentor**

*Data Science Intern*

**India**

*Jan 2019 - Mar 2019*

- Collected IPL 2018 dataset and then preprocessed it further using missing values imputation and outlier detection. Implemented Cluster Analysis to predict if an user will follow you back once you follow them

## PROJECTS

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- **Explainable K-Means Python Library:** Developing a python library for interpreting KMeans clusters using Decision Tree.
- **Histopathologic Cancer Detection:** Created an Image Classifier to identify metastatic cancer in small image patches taken from digital pathology scans and applied Occlusion Analysis to explain the parts of the image are generally responsible for positive identification.
- **Used Cars Price Prediction:** Performed feature engineering and web scraping for missing value imputation and implemented XgBoost algorithm to predict the price of an used cars based on important features.
- **Multiple Minimum Support for Apriori Algorithm:** On UCL document dataset, I have implemented Multiple Minimum Support for Apriori algorithm from scratch using Python.

## Skills

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|        |                  |            |
|--------|------------------|------------|
| Python | Machine Learning | Keras      |
| R      | Deep Learning    | Pytorch    |
| Julia  | Computer Vision  | Tensorflow |
| Linux  | Image Processing | OpenCV     |

## Interpersonal Skills

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|---------------|-------------------|
| Leadership    | Critical Thinking |
| Communication | Team Work         |
| Integrity     | Decisiveness      |
| Flexibility   | Compliance        |

## Courses

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- Generative Adversial Networks, Coursera, 2020-Present
- Deep Learning Specialization, Coursera, 2019-2021
- Machine Learning A-Z: Hands on Python and R in Data Science, Udemy, 2019

## Languages

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- English (C1)
- French (A2)
- Hindi (C2)
- Bengali (Native)