

SAHIL YADAV

1208, Malviya-A Bhawan, BITS Pilani
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EDUCATION

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|---|------------------------------|
| Birla Institute of Technology and Science, Pilani | <i>2018 - 2023(Expected)</i> |
| M.Sc. (Hons.) Mathematics + B.E. (Hons.) Electrical & Electronics Engineering | CGPA: 8/10 |
| Blue Bells Model School, Gurgaon | <i>2017 - 2018</i> |
| Class XII CBSE | Percentage: 94.8% |
| Blue Bells Model School, Gurgaon | <i>2015 - 2016</i> |
| Class X CBSE | CGPA: 10/10 |

PROJECTS

- Single Image Deraining using Conditional GANs and DCP - *Computer Vision*** Ongoing
Guide: Prof. Pratik Narang, BITS Pilani
- Project aims to clean images degraded by raindrops/streaks effectively
 - Implementing a conditional generative adversarial network using Pix2Pix as a motivation
 - Using Dark Channel Prior (DCP) applied images as 'noise input' to enhance performance of generator.
- Solar Flares & other Ionospheric Disturbances Detection - *SARA SuperSID*** Ongoing
- Applying Machine Learning methods to predict and classify solar flares and ionospheric disturbances.
 - Predictions are based on data provided by SWPC GOES X-Ray Flux.
 - Automated data collection from loop antenna using SID software and Python.
- Spam Classification on Different Languages - *Natural Language Processing*** Spring 2019
- Implemented Naive-Bayes classifier and CountVectorizer on SMS Spam dataset
 - Extended the algorithm to a mixture of different languages for a universal classifier

RELEVANT COURSES

- **Mathematics:** Probability and Statistics, Optimization*, Linear Algebra, Differential Equations*, Multivariable Calculus, Elementary Real Analysis*, Discrete Mathematics*, Abstract Algebra*, Complex Analysis, Mathematical Methods**, Operations Research**, Graphs and Networks**, Measure and Integration**

* Ongoing, ** Next Semester

TECHNICAL STRENGTHS

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| Programming Languages | Python, C, C++ |
| Libraries | TensorFlow (Keras), OpenCV, NumPy, Scikit-Learn, Pandas |
| Software Skills | MATLAB, Vim, L ^A T _E X, AutoCAD |
| Platforms | Linux, Windows |

SCHOLASTIC ACHIEVEMENTS

- Awarded **Merit-cum-Need(MCN) scholarship** by BITS Pilani for extraordinary academic performance.
- Ranked in **National Top 2%** (amongst 1,200,000 candidates) in JEE Mains Examination 2018
- **School Topper** in Computer Science, XII CBSE Board Examinations 2018

EXTRA-CURRICULAR

- **The Radio Astronomy Club, BITS Pilani:** Working on various projects like **Sky Watch Array Network (SWAN)** and **SARA SuperSID** to study radiation data from pulsars and solar flares
- **Media Relations Club, BITS Pilani:** Covering the institute's fests: BOSM, Oasis, APOGEE and communicating with journalists
- **Bedrock 2019, E-week:** Beat 10 other teams competing to manage a restaurant for an entire day in an event organised by the Center for Entrepreneurial Leadership, BITS Pilani
- **Tabla Player:** Learned Tabla for 2 years. Participated in the **World Cultural Festival 2016**
- **NCC Cadet:** Received A grade certificate for 2 years rigorous training and 10 days winter camp
- **Swadhyay Member** (A devotional movement based in Maharashtra, India): Active member for 4 years and center coordinator