

HEERA LAL

Academic Details				
Year	Degree	Institute	CGPA/ Marks(%)	
2021	M.Tech Biomedical Engineering(TA)	Indian Institute of Technology Hyderabad	8.91	
2018	B. Tech Electronic Instrumentation and Control Engineering	Government Engineering College, Ajmer	72.76%	
2014	XII (Board of Secondary Education, Rajasthan)	SJ SR SEC SCH, Kota	68.8%	
2012	X (Board of Secondary Education, Rajasthan)	JVP SEC SCH, Barmer	75%	

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	Achievem			
	d 6th merit in B. Tech (Electronic Instrumentation & Con	•	•	
	d All India Rank 503 in Instrumentation Engineering GAT	, , , , , , , , , , , , , , , , , , , ,		
• Schola	rship awarded by MHRD funds as a Teaching Assistant i	n the master's program, IIT Hyderabad.		
	Work Expe	rience		
ConverData co and built	lyst Intern, BlitzJobs: sion of Business problem to Data Science problem. ollection, cleaning, exploratory data analysis, a literature ilding a model to predict potential clients. ting insights and a new strategy to the Stack holders.	survey on various machine learning algorithms	Jun20 - Aug20 s,	
 Graduate Teaching Assistant, IITH: Responsible for assignment design, collection, and hands-on tutorials for Scientific Computing and Introduction to Brain & NeuroScience. 				
 Smart Village Movement (SVM), UC Berkely & Janitri: Creating healthcare ecosystem model to reduce Meghalaya's maternal mortality rate under the guidance of Dr. Solomon Darwin and Dr. Anil Shah. Research on causes, prevention, early diagnosis, recovery, and positive health. 				
 Thermal Power Plant Operator Intern, SSTPS: Worked at Suratgarh Super Thermal Power Plant (SSTPS) of Rajasthan Rajya Vidyut Utpadan Nigam Ltd(RVUNL) in various areas concerning thermal plants such as Coal handling, Boiler section, Ash handling, a Turbine section, and many more instruments used for a thermal plant. 				
	Project	ts		
NEURO	Thesis: Ig simulations of movements in the upper limb by contro Imotor integration and Design (NEUROiD) platform devel under the guidance of Dr. Mohan Raghavan.		Jul20- present o)	
 Real-Time Tachycardia and Bradycardia Arrhythmia Detection: Heart rate monitoring and arrhythmia detection in real-time using a three-lead ECG system deigned on board using instrumentation amplifiers, LabView for the signal processing, alarm generation for an emergency condition under the guidance of Dr. Kousik Sarathy. 				
 Eight-cl and pro 	y Detection in Lower Limbs: hannel EMG data is recorded from different pairs of mus ocessed in python to show the muscle activity and their of Raghavan.			

Image Reconstruction:
 Reconstruction of Shepp-Logan phantom using various algorithms like Back Projection(BP), Filtered Back
 Projection (FBP), and Simultaneous Iterative Reconstruction Technique (SIRT) to improve the quality of the

Natural language Processing:

- IMDB Movie reviews sentiment classification using various Supervised algorithms with suitable Hyper parameters.
- Twitter data from kaggle for **sentiment analysis** during covid-19 outbreak.

reconstructed image under the guidance of Dr. Renu John (HOD, BME)

• News Article Clustering Using Unsupervised Learning.

Bank's Marketing Campaign Analysis:

- Prediction of the client's subscription for a long term deposit based on the analysis of the marketing campaigns.
- Prediction of the loan approval status of a new new client.

Temperature Transducer Trainer kit:

Jan18 -

 Designed a Temperature Transducer Trainer kit to study characteristics of 4 types of temperature transcducers on a single board for Sensors and Transducers Lab at GEC, Ajmer under the guidance Dr. J.K. Deegwal (HOD, EI&C) Apr18

3D Print of Prosthetic Tooth:

 Autodesk Inventor and 3D printed, improved design, improved osseointegration, antibacterial coating, displacement measurement of implanted using a magnetic sensor.

Skills

Programming Languages: Python, C (Basic), SQL, hoc, Ladder logic

Tools & Frameworks: NumPy, pandas, Matplotlib, scikit-learn, Tensorflow, VS Code, git, HTML, CSS, LaTeX Software: MATLAB, LabVIEW, Tina-TI, NEUROID, NEURON, OpenSim, Wonderware InTouch, RSLogix Micro Hardware: NI ELVIS II, Bolt IoT, PLC(Siemens S-1200, Allen Bradley Micrologix-1000), Control Panel designing.

Relevant Courses

Advance Machine leaning & Signal Processing authorized by IBM and offered through Coursera

N4L6DY9FF5CD

SQL for Data Science authorized by University of California, Davis and offered through Coursera

DV6C6U6N9GF3

Python for Data Science offered through GREYATOM

GA-1BH1N52YH

Areas Of Interest

- Computational & Cognitive neuroscience
- Natural intelligence & Artificial intelligence
- · Data Science & Machine Learning

Positions of Responsibility

SunShine (Guidance and counseling Department) PG-Mentor at IIT, Hyderabad.

2019 - Present

Extracurricular Activities

- Won first prize in Treasure Hunt, IITH
- Selected as a volunteer in the "TECHNOTSAV 2k16" as well as coordinator in "TECHNOTSAV 2k17" conducted by Govt. Engineering College Ajmer.
- Selected as a volunteer in the "COMBAT 2k15" as well as coordinator in "COMBAT- 2k16" conducted by Govt. Engineering College Ajmer.
- Participated as a volunteer in the "Ability Fashion Walk" for special children of Minu Manovikas Mandir Inclusive School, Ajmer.

Hobbies

Chess, Farming, traveling, Music