

Het Shah

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EDUCATION

BITS PILANI, GOA CAMPUS

B.E. IN COMPUTER SCIENCE
Jul 2021
CGPA: 8.33 / 10.00

GOOGLE AI RESEARCH SUMMER SCHOOL

Aug 2020
Among 150 students selected.
Selected in HCI and *AI4SG* track

UDGAM SCHOOL

May 2017 | HSC
Percentage: 91%

D.A.V. INTERNATIONAL SCHOOL

May 2015 | SSC
CGPA: 9.80 / 10.0

COURSEWORK

Neural Networks and fuzzy logic
Machine Learning
Automated Theorem Proving
Intro to Cognitive Neuroscience
Data Structures and Algorithms
Logic in Computer Science
Linear Algebra
Advanced Calculus
Probability and Statistics
Differential Equations

CERTIFICATION

DeepLearning.ai | (Certificate)
Nettech (top 10) | (Certificate)

SKILLS

PROGRAMMING

Python • C++ • C • JAVA
JavaScript • MySQL

FRAMEWORKS

PyTorch • Tensorflow • Keras
ReactJS • NodeJS • ExpressJS

CLOUD

AWS • GCP

VOLUNTEERING

Abhigyaan - NGO

EXPERIENCE

APPCAIR, BITS GOA | UNDERGRADUATE RESEARCH COLLABORATOR

January 2020 - Present | Links: Project (IKD_DAFI)

- Currently working on "Transformers for algorithmic Approximations" and "Object detection in electrical circuits" in collaboration with TCS-Research.
- Worked on a project titled "Iterative Knowledge Distillation on Data-Free Learning", done in collaboration with TCS-Research.

IAS, TU-DARMSTADT | REMOTE COLLABORATOR

May 2020 - September 2020 | Remote

- Worked on a project to segment out human motion sequences, with a motion capture dataset consisting of **human-object** interactions.

BISAG | SUMMER INTERN

May 2019 - Jul 2019 | Gandhinagar, India | Links: Project, Report

- The project, titled "Texture Segmentation", aimed at creating a Semantic Segmentation model for locating agricultural patterns specific to **Horticulture**.
- Created a novel Remote Sensing dataset from scratch and constructed a **U-Net** model using Keras after considering and experimenting with several other algorithms.

PROJECTS

KD-LIB

May 2020 | Links: Project

- A Pytorch Library that will help extend all **Knowledge Distillation, Pruning and Quantization** works, and benchmark some of the best papers in these domains.
- I am the **project lead** for this library, which currently has **80+** stars.

GENRL

April 2020 | Links: Project

- GenRL is a PyTorch based **Reinforcement Learning library** centered around reproducible and generalizable algorithm implementations
- I have contributed to the **DQN** and **VPG** agents on the deep RL side and **SARSA** on the classical RL side. I have also contributed to **vectorized Environments**.

INSTRUMENT GAN

Aug 2019 - Nov 2019 | Links: Report

- Successfully generated music using a **Generative Adversarial Network**, based on the paper **MuseGAN**.
- Project completed as a formal project under **Prof. Sujith Thomas**.

TEACHING EXPERIENCE

MACHINE LEARNING - TEACHING ASSISTANT (BITS F464)

Fall 2020

- Responsible for conducting the lab sessions for 120 undergraduate students in their pre-final year.
- Responsible for creating Project statements for the course.

PUBLICATIONS

- [1] A. Vaswani, R. Ganguly, H. Shah, S. R. S, S. Pandit, and S. Bothara. An autoencoder based approach to simulate sports games. *7th Workshop on Machine Learning and Data Mining for Sports Analytics at ECML-PKDD 2020*, 2020.