Shreyas Bapat

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EDUCATION

INDIAN INSTITUTE OF TECHNOLOGY MANDI
B.Tech. in Electrical Engineering
Expected Jun 2020 | Mandi, India
Cum. GPA: 7.55

MISS HILL H. SEC. SCHOOL
Class XII
Grad. March 2016 | Gwalior, India
Central Board of Secondary Education
Percentage : 93.4%

KENDRIYA VIDYALAYA NO. 1
Class X
Grad. March 2014 | Gwalior, India
Central Board of Secondary Education
CGPA : 10

LINKS

GitHub:// **shreyasbapat**
Links to Projects:
https://shreyasb.com/links.html
LinkedIn:// **shreyasbapat**

COURSEWORK

UNDERGRADUATE
Pattern Recognition
Artificial Intelligence
Data Structures and Algorithms
Communicating Distributed Processes
Computer Organisation
Signals and Systems

SKILLS

PROGRAMMING
Python • C++ • C • Flutter
WEB DEVELOPMENT
Flask • Dash • CSS3 • HTML
Sphinx • Django
TOOLS/MARKUP
pipenv • Docker• git • virtualenv
numba • Keras• LaTeX• ReStrctured Text

AWARDS

KVPY Scholar 2016-17
Inter IIT Tech Meet - 3rd/23 (SCI)
Mentor @ Astronomy Code Camp Delhi

INTERESTS

Deep Learning
Data Visualisation
Astrodynamics
Software Development

WORK EXPERIENCE

SIEMENS | Software Research Intern
Dec 2019 - Feb 2019 | Bengaluru, India

- Using generatative models for test data generation. Exploring active learning for automatic data labelling.
- Implementing CycleGAN for style transfer of images.
- Implementing MUNIT for style transfer and comparison of both the approaches.
- Implementing StyleGAN for generating random data.

ANKAM | Deep Learning Intern
Aug 2018 - Nov 2018 | Mandi, India

- Implementing transfer learning to classify images of human eyes using ResNet50 for Diabetic Retinopathy Detection.

POLIASTRO | Software Development Intern
May 2018 - Aug 2018 | Mandi, India

- Implemented interactive 2D plotting, refactoring the plotting module to create backends and orbit simulation. Fixed hyperbolic orbits.
- Developed module being used by scientists in ESA (European Space Agency) to simulate orbits of various objects in space.

PUBLICATIONS

PROJECTHIKO 1.0 - THE VOICE AND INTERNET ENABLED SMART HOME | Co-Author
June 2017 | IJETSR ISSN: 2394-3386
Cost Reduction in home automation. Used flask for handling backend. Implemented Speech Recognition.

PROJECTS

EGO-NONEGO VIDEO DETECTION | Undergraduate Research
Feb 2018 - May 2018 | Mandi, India

- Video Classification on the basis of position of camera.
- Implemented a Autoencoder to create Optical Flows by taking video frames. Used ResNet50 for classification.
- Technologies Used: Python, matplotlib, MATLAB, Keras, Tensorflow.

FABRIC DETECTION | Undergraduate Research
Jan 2018 - Mar 2018| Mandi, India

- Implemented Transfer Learning to train an encoder to reduce dimensions of microscopic fabric images.
- Used Fully Connected Layers to classify the bottlenecks. Used tSNE to cluster the various classes. Technologies Used: Python, Keras.

EINSTEINPY/EINSTEINPY | Lead Developer
Dec 2018 – Present | Mandi, India

- Author of a Python Library, EinsteinPy - a library for computations related to general relativity and geodeic equations. Solving schwarzschild geometry in minutes!
- Published as a Pypi Package.

RESPONSIBILITIES

CO-ORDINATOR | Space Technology and Astronomy Cell
June 2017 - May 2018 | Mandi, India
Awarded as Best SnTC Coordinator for 2018-19.