Kukunuri Sai Venkata Ratna Rithwik
Third Year Undergraduate
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Education

Degree	Institution	CPI/ %	Year
B.Tech	IIT Gandhinagar	7.3	2016 - Present
Class XII	Narayana College, Vijayawada	96.9	2014-2016
Class X	Narayana School, Vijayawada	9.7	2013-2014

Internships

- **Super Resolution of Images using Deep learning, IIT Gandhinagar [May 2018 - July 2018]**
  Prof. Ravi Hegde
  - Created new methods for Super Resolution of Images.
  - Investigated many state of the art methods and successfully deployed them on Python.
  - Explored Deep Neural Networks and Generative Adversarial Networks using Python Libraries such as **Keras** and **Tensorflow**.
- **Automatic Number Plate Recognition System, Krishna's Software Technologies [May 2017 - July 2017]**
  - Developed an application for Automatic Number Plate Recognition System.
  - Learnt about the importance of Open Source and several key techniques in Image Processing.
  - Created an **OpenCV** based Vehicle Counter and Velocity Approximator.

Projects

- **Energy Data Super-Resolution and Disaggregation [Research Project] [Ongoing]**
  Prof. Nipun Batra
  - Implemented Deep Learning based methods for Upsampling the Pecan Time-Series Electricity Dataset. Coded in Python using **Keras**. Also worked on converting aggregate reading to appliance reading.
  - Used a few other Machine Learning algorithms to output Hourly reading given the Daily reading of a house.
- **Insult Detection from Social Media [Ongoing]**
  - Detection of Insults on Social Media using fundamental Natural Language Processing and Machine Learning based techniques.
  - Used Logistic Regression, Random Forest, Decision Trees and Neural Networks for the task.
- **Hand Gesture Controlled Chrome Dinosaur Game**
  - Created an Hand-Gesture control for the dinosaur game in Chrome. Used **Selenium** and Computer Vision techniques. Coded in Python using **OpenCV**.
- **Face Recognition**
  - Created an application for Recognizing faces using Eigen Vector Projection and Machine Learning.
  - Coded in Python using **OpenCV** and **Numpy**.

Technical skills

- **Languages**: Python, C, C++, Octave, Matlab, Verilog.
- **Utilities**: Autodesk Inventor Professional, Latex, Conda Spyder, git, Jupyter Notebook .
- **Web Technologies:** Bootstrap, Django, PHP, HTML, CSS, JQuery
- **Modules:** Sklearn, Tensorflow, OpenCV, Pandas, Numpy, Keras.

Positions of responsibility

- Secretary, Metis, Coding Club, IIT Gandhinagar.
- Microsoft Student Partner, IIT Gandhinagar.
- Exhibition Member, Amalthea, Tech Summit of IIT Gandhinagar.