Ashish Gupta

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EXPERIENCE

Research Intern under Arun k. Pujari Vice Chancellor,Central University of Ajmer,Rajasthan
Jan 2019-Sept2019

I worked on 3D reconstruction problem. I worked on Visual Hulls(3D reconstruction algorithms),3D algorithms,Object Pose estimations,octrees,Semantic Segmentation.

Intern Orbnet Softech Solution Pvt. Ltd

May 2018-July 2018

I worked on developing Student Online Test System with Marks Evaluation Using Fuzzy Logic(Online Portal) with JSP,MySQL,HTML,CSS and develop various small Desktop Application in Java.

Graphic Designer and Content Creator at Unfold Crafts
May 2017-July2017

I worked on Photoshop and graphic designing and in a YouTube video(around 2000 views) which is related to Friendship week with its design. Link-(https://www.youtube.com/watch?v=7_aekDPZDzo&list=PL_eX0WMadZrdSm-waVLMFnYdFhsI6-3GW&index=6)

EDUCATION

2016-Saint George Academy, Jaipur -12th RBSE Board

2020-Pursuing BE(7th Sem) in **Computer Science Engineering** from **Birla Institute Of Technology, Mesra, Ranchi**

PROJECTS

1. Single View 3D Object Reconstruction
Feb 2019-May 2019

- Using deep Residual Nets(CNN) and Shape Net(Synthetic Images) dataset, I construct a network which takes a single input image and gives output as the corresponding 3D object of the object present in the image. I have taken 4 classes i.e. table, chair, car, airplane. All the implementation is done in

Courses

- Java SE,Java EE
- Deep Learning Specialization
- Fuzzy Logic,Nptel(Prof. Debasis Semanta)
- Linear Algebra(18.06) by Gilbert Strang MIT OCW
- ScienceOf Uncertainty,edx
- NLP Analyzing Text with the Natural Language Toolkit by Steven Bird, Ewan Klein, and Edward Loper

Achievements

- Convernor at Computer Society of India, BIT Since 2017(3rd Sem), MESRA Campus.
- Winner at SUR SANGAM at Vibrations,Cultural Fest BIT Mesra.
- Operations Coordinator at Quizophilic India.
- Winner at Singing Competition at Surbhi Music Sanstha.
- Sponsorship coordinator at Cavorts.

Skills and Handles

Deep Learning and ML
Pytorch,Tensorflow,keras Sklearn,numpy,pandas and openCV,matlotlib,NLTK

Web and Desktop Development
Java SE and Java EE

Database
Mysql,Oracle

Pytorch Framework and GPU used is Tesla K80 by Google colab. Batch size is 24 and learning rate is 1e-4.

2. Extracting Silhouette By Semantic Segmentation
March 2019-April 2019

- I extract silhouette from the images using deep Residual network. Pytorch is used with Pillow. Dataset used was PascalVoc 2012.The learning rate is set to 1e-4 and it took around 2 Hrs to process around 3000 images with batch size of 16. Google Colab GPU is used.

3. **Rule based NIM Game JAVA**
August 2017

- It's a GUI Java-based game which uses various Heuristic(Rules). The set of rules are designed on two bases:

i. Winning Condition-The winning goes in the hand of the computer player, ie. now whatever move human will take, there is no chance of winning the human player.

ii. Not in winning condition-The computer player is not in the winning condition, so it will try to take all those moves to let the computer player be in winning strategy.

4. Chatbox using RNN(Bidirectional RNN's) with attention mechanism. Dataset-Reddit Comments
August 2018

- Filtering of the dataset is the crucial Part of this project. Single Month Dataset(July) is used and interpreted using SQLite python. Some Rules/queries (logic) are used for filtering of the dataset.

- I used Neural Machine Translation Concept and attention mechanisms. Tensor flow is used with google colab as GPU.

.5. Object Pose(6 DOF) Estimation
Feb 2019

- Using ShapeNet and Pascal Voc dataset we estimate rotation and translation (camera extrinsic parameters).

- Using CNN as pose regressor and the project is implemented in pytorch. I used L1 loss and Adam optimizer with a learning rate of 1e-4.

6. Botanical Flowers Identifier with Web Search Facility
October2018-October 2018

- In this image is captured using openCV. Neural Net is simple CNN architecture in Pytorch and dataset used is Kaggle Flower dataset with 11 classes of flowers. For Web Searching Web Browser and Google Search API is used. Training is done in Google Colab GPU.

7.**Sentiment analysis using RNN(GRU's) (NLP)**
Here in this, I used the Recurrent Neural Network with 3 recurrent units. Used GRU's and used a data-set consisting of 50000 reviews of movies from IMDB.
The code is in Tensorflow with Keras.
accuracy training: 0.8765 validation accuracy: 0.8752

8. Online Test System with Marks Evaluation Using Fuzzy Logic(Online Portal)
December 2017-Feb 2018

- Here in this, an online portal is created using Java Server Pages (JSP) with HTML and CSS. Database-MySql

Cloud
Google Colab

Programming Languages
Python,Java ,C,C++

Operating Systems
Linux,Microsoft Windows

GitHub
https://github.com/ashishgupta2598

Medium Blogs
https://medium.com/@ashishgupta_65016

LinkedIn ID
https://www.linkedin.com/in/ashish-gupta-36934874/

- **Features:**
  - ✔ Login/ accounts for students and Faculty.
  - ✔ Faculty can conduct various examinations (MCQ's) for particular batches.
  - ✔ Students marks are evaluated and updated in the Data Base.
  - ✔ At the end of the semester, student marks are evaluated using Fuzzy Logic and mark sheet is generated.

9. Chat Application Using Socket Programming in JAVA
July 2017

- It provides one to one with group Chat option.GUI is designed with swings.