Manas Bundele

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EDUCATION

UNIVERSITY OF TEXAS AT DALLAS | **MS in Computer Science (Intelligent systems track)** **Aug 2020**
Cum. GPA: 3.81/4.0

INDIAN INSTITUTE OF TECHNOLOGY, JODHPUR | **B.Tech. in Computer Science & Engineering** **May 2016**

SKILLS

Proficient: C • C++ • Ruby on Rails • Python •Postgresql

Familiar: Scala • Javascript •Matlab •SQL •LaTeX•HTML • CSS • jQuery

Tools & Utilities: Tensorflow • Scikit-learn • NLTK • Spacy • Numpy • Pandas • Big Data (Hadoop, MapReduce, Spark, Kafka, NoSQL systems) • AWS • Git

WORK EXPERIENCE

ETSY SUMMER OF VISION, ETSY INC. | **Machine Learning Intern** **July 2020 - Present**

- Working on the design and development of a novel technique towards scene-aware, compatible fashion product recommendation

UT DALLAS COMPUTER SCIENCE DEPARTMENT | **CS Grader [Part-time]** **Aug 2018 - May 2019 | Feb - May 2020**

- Got nominated for the 'Best Grader' Award in the department
- Graded the tests, quizzes and assignments of a batch of 75 undergraduate students for the course Discrete Mathematics

UT DALLAS COMPUTER SCIENCE DEPARTMENT | **Outreach Camp Counselor [Part-time]** **Jun 2019 - July 2019**

- Guided and mentored young impressionable minds during summer coding camps

VOYLLA FASHIONS PVT. LTD., JAIPUR | **Software Engineer** **May 2016 - Jun 2017**

- Project LP Boost: Designed and implemented a Landing Page Ranking algorithm that increased the AOV by 30% and was probably the first such advanced implementation in the company
- Project Solidus: Voylla Website Upgradation (Team of Eight developers) and Data Migration.
  - Successfully launched the website with improved efficiency and enhanced customer experience
  - Developed and optimized website's order pipeline(in a team of 4), improving its performance for seamless experience
  - Handled data migration, a very critical aspect of the project which could only be totally tested in production environment

RESEARCH PROJECTS

DISCERNING INSIGHTFUL CONTEXTS IN IMAGE CAPTIONING BY LEVERAGING COMMONSENSE KNOWLEDGE
Master's Thesis | Advisor: Dr. Jessica Ouyang **Aug 2019 - Jul 2020**
Thesis Committee: Dr. Dan Moldovan & Dr. Vincent Ng

- Developed a novel technique to infer the context of an image by understanding its contents
- Idea is to use saliency-based ranking of visual information and common sense reasoning to draw insightful contextual inferences about the image, using it to generate captions in the future

CODE-SWITCHED MACHINE TRANSLATION | **Dr. Jessica Ouyang** **Oct 2019 - Dec 2019**

- Worked on neural machine translation from code-switched Hindi-English text to English in a team of 3 members
- Performed literature survey, identified the problems involved in existing systems, trained a Transformer model and implemented 3 improvements over the chosen baseline

INTERACTIVE MEDICAL IMAGE SEGMENTATION & 3D VISUALISATION | **B.Tech project** **Jul 2015 - May 2016**
| Guide: Dr. Chiranjoy Chattopadhyay & Dr. Gaurav Harit

- Developed a semi-automated segmentation technique for efficient image analysis for 3D visualisation as well as image guided surgery at reduced costs and minimized expert intervention
- Got nominated for the Best B.Tech. Project Award, one of the 3 projects nominated in the entire batch of 2016
- Handed over the efficient segmentation software and 3D visualisation software to All India Institute of Medical Sciences(AIIMS), Jodhpur for the cost-effectiveness analysis of patients' reports

PROJECTS

FAKE OPINION DETECTION | **Dr. Anurag Nagar** **Jul 2019**

- Developed a supervised learning model using Pyspark and MLlib that was able to detect fake reviews in YelpNYC dataset
- Consisted of various pre-processing and feature engineering techniques, solved the class imbalance problem

CONVOLUTIONAL NEURAL NETWORK DESIGN FOR MODIFIED MNIST | **Dr. Haim Schweitzer** **Apr 2019**

- Implemented a residual network using Tensorflow in Python and included batch normalization, non-linearities, dropout, l2 regularization to improve accuracy and reduce overfitting
- Achieved over 90% accuracy in 4 & 1/2 min on testing data of 10k images with modified different random training datasets of 6k images of size 7*7

SIGN LANGUAGE TRANSLATOR | **Dr. Xiaohu Guo** **Nov 2019**

- Developed a sign language translator using Kinect that targeted the communication between a deaf and a normal person
- Was able to achieve two separate components of two-way communication that involved gesture recognition and provide response to it in the form of an animated gesture

PUBLICATION

- Pratik Kalshetti, Manas Bundele, Parag Rahangdale, Dinesh Jangra, Chiranjoy Chattopadhyay, Gaurav Harit and Abhay Elhence; "An Interactive Medical Image Segmentation Framework Using Iterative Refinement", Computers in Biology and Medicine, February 2017, pp. 22-33.

SELECT POSITIONS OF RESPONSIBILITY

ASSISTANT CO-ORDINATOR, COUNSELING SERVICE | **IIT Jodhpur** **Mar 2014 – Apr 2015**

HEAD, PUBLICITY AND MEDIA, VARCHAS'14 | **IIT Jodhpur** **Sep 2013 – Feb 2014**

RECENT ACADEMIC ACHIEVEMENT

- Project proposal got accepted into Etsy Summer of Vision (ESV) fellowship program 2020
- Recipient of Master's Summer Research Fellowship at UTD 2020
- Jonsson School $1000 Graduate Study Scholarship Recipient 2018 - 2019
- Journal Publication honored with "Meritorious" status in Honored papers 2017, Computers in Biology and Medicine doi: 10.1016/j.compbiomed.2018.05.020 2018
- B.Tech. Project, one of the three projects nominated from the institute for 'Best B.Tech. Project' award 2016
- Among the top 0.7% students in the country; securing All India Rank 3471 in IIT-JEE 2012 among 500,000 candidates 2012