Saumya Rawat

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EDUCATION

UNIVERSITY OF MARYLAND
Masters in Computer Science
GPA: N/A | Expected 2020
College Park, MD

IIIT HYDERABAD
Bachelor of Technology in Computer Science
GPA: 8.38/ 10.0 | Graduated May 2018
Hyderabad, India

COURSEWORK

GRADUATE
Image Understanding
Deep Learning

Teaching Assistant for :
Intro to Computer Systems

UNDERGRADUATE
Computer Vision
Artificial Intelligence
Algorithms
Statistical Methods in AI
Optimization Methods
Distributed Systems
Operating Systems
Natural Language Processing

Teaching Assistant for:
Structured Systems Analysis and Design
Digital Image Processing

SKILLS

PROGRAMMING
C/C++ • Python • Java • MATLAB • OpenCV • TensorFlow • Caffe • PyTorch

SOFTWARE & TOOLS
Linux • HTML • CSS • Unity3D • AngularJS • Ruby On Rails • Bash • LaTeX

AWARDS

2017 Dean's List
2017 Merit List
2014 Scholastic Award for Academic Excellence
2012 Sheikh Zayed Memorial Educational Award

EXPERIENCE

42HERTZ | Machine Learning Intern
June 2017 – August 2017 | Bangalore, India
- Built a collaborative filtering recommender system for a large scale dataset with implicit feedback specifically dealing with sparsity.

NORTHWESTERN UNIVERSITY | Research Intern
Summer 2016, Monsoon 2017 | Advisor: Dr. Chaitanya Bandi
- Performed an extensive feasibility research for a Youth Mental Health Project and developed a prototype for battery-related features (Android).
- Also worked on OCR for a medical database documentation project. (Python, Tensorflow).

PUBLICATIONS

Saumya Rawat, Siddhartha Gairola, Rajvi Shah and P.J. Narayanan, "Find me a sky : a data-driven method for color-consistent sky search & replacement", International Conference on Multimedia Modeling (MMM2018) in Bangkok, Thailand
https://cvit.iiit.ac.in/research/projects/cvit-projects/findmeasky

RESEARCH

CENTRE FOR VISUAL INFORMATION TECHNOLOGY
May 2016 – May 2018 | IIIT Hyderabad | Advisor: P.J. Narayanan
- Worked on scene understanding and image aesthetics. (Tensorflow, Python)
- Dealt with the problem of sky matching to improve photos via compatible sky generation by training Variational Auto-Encoders (deep neural networks).
- The goal was to generate a realistic sky through a visual feature learning algorithm driven by context-based pixel prediction for the sky pixels of an image.

PROJECTS

SEMANTIC AWARE COLOUR TRANSFER | Computer Vision
- Implementation of Tsai. et al, SIGGHRAPH16, model generates images with stylized skies by exploting visual semantics for sky editing and scene parsing. (Caffe, Matlab)

SAFETYFIRST : DROWSY DRIVER DETECTION | Computer Vision
- Automated alert system that employs Haar Feature-based cascade classifiers for face detection, extracts and tracks the facial components in live webcam feeds to detect a snoozing driver. (OpenCV, Python)

RESTAURANT REVENUE PREDICTOR | Data Science
- A Machine learning model to accurately predict the annual restaurant sales implemented using an ensemble method of Random Forests, Support Vector Regression and Ridge Regression. (Python)

EXTRACTIVE SUMMARIZATION | NLP
- Implemented unsupervised summarization methods: :LexRank, TextRank, Centroid Summarization and trained RNN for Seq2Seq Encoder Decoder model. (Tensorflow, Python)