ANIL K. BATRA

Research Engineer

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% anilbatra2185.github.io/

RESEARCH EXPERIENCE

Research Engineer

Pro@Facebook

Jan 2019 - Present

♥ Hyderabad, IN

- Implementing distributed learning workflows for large scale training of satellite images.
- Exploring to extract road topology from noisy labeled data and efficient architecture for real time inference.

Research Assistant IIIT Hyderabad (CVIT)

m Jan 2016 - Dec 2018

♀ Hyderabad, IN

Team : Prof. C.V. Jawahar (CVIT), Suriya Singh (MILA), Guan Pang (Facebook), Saikat Basu (Facebook)

• Working under the guidance of Prof. C.V. Jawahar and team on the development of knowledge sharing algorithms for the analysis of satellite images with less labeled data.

Mentor

Talent Sprint/IIIT Hyderbad

Jan 2018 - Apr 2018

♥ Hyderabad, IN

 Mentored industrial professional in lab sessions by explaining the concepts of AI & ML in 12 weeks course.

PROJECTS

Improved Road Connectivity in an End-to-End Network CVPR 2019

- Design a novel task to impose connectivity constraints to extract the topological correct road network from satellite images.
- Proposed a multi-task learning architecture to effectively boost the road connectivity.
- Proposed a connectivity refinement model to recursively connect the broken road segmentation.

Self Supervised Feature Learning for Semantic Segmentation of Overhead Images BMVC 2018

- Improve semantic segmentation of different tasks (Land Classification, road network estimation and scene parsing) by learning a proxy task of image in-painting.
- Develop an adversarial training scheme to dynamically increase the difficulty of proxy task, leading to better segmentation

Motion Field Estimation in image sequence DIP Course Project

• Study and analysis of edge flow in images to estimate the flow of different objects. In the course project, I use discrete Markov Random Field (MRF) to extract the motion of each object from synthetic and natural image sequence.

Topic Models for Image Annotation & Text Illustration SMAI Course Project

 Study and use Latent Drichlet Allocation model to describe and annotate images from vast resources of freely available web documents with images.

EDUCATION

M.S. in Computer Science IIIT Hyderabad

🛗 Jan 2016 - Jun 2019

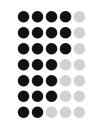
CGPA: 8.44/10

B.Tech in Electronics & Communication Punjab Technical University

CGPA: 8.38/10

SKILLS

Python C# PyTorch Caffe OpenCV C/C++ CUDA



OTHER SKILLS

 LaTeX
 JavaScript
 MATLAB
 HTML

 Sitecore
 SharePoint
 SQL
 GO

 Tensorflow
 TensorBoardX

COURSE WORK

Computer Vision

Digital Image Processing

Artificial Neural Networks

Optimization Methods

Statistcal Methods in Al

Topics in Machine Learning

Computer Graphics

ACHIEVEMENTS

lacksquare

Gold Medalist

in Bachelor of Technology, 2007.

Qualified GATE 2009

in ECE with 99.4% tile with All India Rank 254.

Qualified GATE 2010

in ECE with 99.2% tile with All India Rank 747.

PUBLICATIONS

Conference Proceedings

- A. Batra, S. Singh, G. Pang, S. Basu, M. Paluri, and C.V. Jawahar.
 "Improved Road Connectivity by Joint Learning of Orientation and Segmentation". In: CVPR 2019,
- S. Singh, A. Batra, G. Pang, S. Basu, M. Paluri, C.V. Jawahar, and L. Torresani. "Self-supervised Feature Learning for Semantic Segmentation of Overhead Imagery". In: BMVC, 2018.

INDUSTRIAL EXPERIENCE

Sr. Consultant

Deloitte

♀ Hyderabad, IN

- Business requirement gathering, estimation and solution designing.
- Supervise team members and oversee their professional developments.
- Product Support, incident, change and risk management.

Sr. Associate Platform L1

Sapient

March 2010 - Jan 2015

Gurgaon, IN

- Technical impact analysis and solution designing.
- Design and customize web based Content Management applications.

Sr. Associate Technology

Sapient (Client - Department Of Health)

🛗 Jan 2013 - Apr 2014

Q London, UK

- Coordinate with client teams for deployment, knowledge transfer and future enhancements.
- Design, customize and maintain applications in Microsoft Technology stack.

Associate Consultant

HCL

Sep 2009 - March 2010

♥ Noida, IN

 Development of windows and web application with SQL server as back-end database.

Software Engineer

Mahindra Satyam

Q Gurgaon, IN

- Trained on Microsoft .Net, Data Structures, C++
- Design sequence diagrams, low level design documents and develop front end HTML web pages with JavaScript.

CERTIFICATES

ML Course By Andrew Ng, Coursera

Scrum Master

PERSONAL DETAILS

D.O.B. : Dec. 21, 1985

Marital Status : Married

Languages : English, Hindi, Punjabi

Nationality : Indian

REFERENCES

Prof. C. V. Jawahar

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☑ IIIT Hyderabad, IN

Guan Pang

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