Shiv Surya

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shivsurya.github.io

Education

2013–2015 **M.S Electrical Engineering**, *University of Southern California*, Los Angeles, CA, USA.

2009–2013 **B.E Electrical and Electronics Engineering**, *Rashtreeya Vidyalaya College of Engineering (RVCE)*, Bengaluru, KA, India.
Graduated with *Distinction*. Senior thesis advised by Dr.Dinesh M.N

Work Experience

Aug 2017-present **Applied Scientist**, *Amazon*, Bangalore, KA, India.
Building machine learning systems for Sponsored advertising.
  ◦ Building machine learning systems for NLU tasks in advertising and active learning ecosystem for training these models.

2016-2017 **Project Staff**, *Video Analytics Laboratory, Indian Institute of Science*, Bangalore, KA, India.
Work on independent research and algorithm implementation primarily in deep learning for CV and intersection of CV and NLP.

Summer 2012 **Research Intern**, *Aeronautical Development Establishment*, Bangalore, KA, India.
Researched and developed image registration algorithms for registering remotely sensed far IR video frames.

Publications

NAACL 2021 Eshwar S G, **Shiv Surya**, Nishanth Nikhil, Dyut Sil, Aruna Rajan and Sumit Negi. **Training language models under resource constraints for adversarial advertisement detection**, *NAACL 2021*

WACV 2020 **Shiv Surya**, Amrith Setlur, Arijit Biswas and Sumit Negi. **ReStGAN: A step towards visually guided shopper experience via text-to-image synthesis**, *Winter Conference on Applications of Computer Vision (WACV), 2020 -* **US patent - Blog post**

TPAMI 2018 Ravi Kiran Sarvadevabhatla, **Shiv Surya**, Trisha Mittal and Venkatesh Babu R. **Pictionary-style word-guessing on hand-drawn object sketches: dataset, analysis and deep network models**, *IEEE Transactions on Pattern Analysis and Machine Intelligence (TPAMI), 2018*

AAAI 2018 **Shiv Surya**[†], Ravi Kiran Sarvadevabhatla[†], Trisha Mittal and Venkatesh Babu R. **Game of Sketches: A Deep Recurrent Neural Model of Word Guessing for Pictionary**, *Association for the Advancement of Artificial Intelligence (AAAI '18)*
[†]equal contributors as first authors

CVPR 2017 **Shiv Surya**[†], Deepak Babu Sam[†] and Venkatesh Babu R. **Switching Convolutional Neural Networks for Crowd Counting**, *IEEE Conference on Computer Vision and Pattern Recognition (CVPR '17)*   *(poster)*
[†]equal contributors as first authors

ACMMM 2016 **Shiv Surya**[†], Ravi Kiran Sarvadevabhatla[†], Srinivas Kruthiventi and Venkatesh Babu R. **SwiDeN: Convolutional Neural Networks For Depiction Invariant Object Recognition**, *2016 ACM International Conference on Multimedia (ACMMM '16)*   *(poster)*
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ICVGIP 2016 **Shiv Surya** and Venkatesh Babu R. **TraCount: A Deep Convolutional Neural Network for Highly Overlapping Vehicle Counting**, *Indian Conference on Computer Vision, Graphics and Image Processing, 2016*   *(oral)*

Programming experience

Mainstream   C++, Python, MATLAB   Scripting   Bash, AWK, Python

Course Work

Applied Linear Algebra (EE441)	Digital Image Processing (EE569)
Probability for Engineers (EE503)	Multimedia Data Compression (EE669)
Pattern Recognition (EE559)	Algorithms (CSCI570)
Machine Learning (EE660)	Speech Processing (EE519)
Estimation Theory (EE563)	

Public Speaking

Apr 2017 **Speaker**, *Deep Learning Workshop*, Qualcomm Corporate Technologies, Hyderabad.

Feb 2017 **Speaker**, *Deep Learning Workshop*, Qualcomm Research, Bangalore.

Nov 2016 **Speaker**, Rashtriya Vidyalaya College of Engineering (RVCE).
Gave a 1 hour technical talk to undergraduate students as a part of their Computer Vision course.

Aug 2016 **Speaker**, *Deep Learning workshop*, Rashtriya Vidyalaya College of Engineering (RVCE).
Gave a half-day technical talk to undergraduate computer science students as a part of 3 day deep learning workshop.

Awards and Honors

○ **Best Senior Thesis in Electrical Engineering**, 2013.

News

March 2020 **Press coverage on our WACV '20 work on visual shopper experience** , *Link 1 Link 2 Link 3* .

Nov 2018 **Press coverage on our AAAI '18 work on pictionary bot** , *Link here*.

Sep 2017 **Press coverage of our CVPR'17 work on dense counting appeared**, *Link here*.

Jul 2017 **Press coverage of our work on dense vehicle counting appeared**, *Link here.*.