(919) 931-7476
ssethur2@ncsu.edu

Shankara Narayanan Sethuraman

San Jose, CA

issn0602
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Education

North Carolina State University **M.S. in Electrical Engineering** **Graduation - Aug 2017**

- Coursework - Algorithms, Object Oriented Design, Data Mining, Machine Learning, Computer Vision, Graphical Models, Computer Networks, Signal Processing, Neural Networks, Random Processes

Birla Institute of Technology and Science, Pilani **B.E. in Electrical and Electronics Engineering** **Graduation - Aug 2014**

- Relevant Courses - Image Processing, Embedded Systems, Numerical Analysis, Operations Research, Fuzzy Logic

Skills

Languages - Python, R, C++, Java, Ruby on Rails
Cloud - IBM Cloud, Apache Spark, Heroku, AWS
Databases - MySQL, MongoDB, PostgreSQL
Tools - MATLAB, Anaconda, Git, LaTeX

Employment

Research Assistant **Indian Institute of Science** **Jan-June 2015**

- Worked on face and attribute recognition from low-resolution video
- Developed image annotation algorithms in OpenCV (C++)
- Deployed the system to monitor the lab in real time (logs entry and exits in the lab)

Research Assistant **Indian Statistical Institute** **July-Dec 2014**

- Conducted a literature study on sparse representations, non-linear prediction and zooming deblurring
- Implemented multi-image super-resolution on non-overlapping low resolution images in MATLAB

IMImobile **Associate Software Engineer** **Jan-June 2014**

- Handled Messaging and Voice APIs in Java
- Developed Unit Test Cases for Feed4junit library
- Developed an E-Wallet using MongoDB for the Open House App

Technical Experience

Machine Comprehension of Text **Python, Tensoflow, ARC Cluster** **2017**

- Implemented an NLP pipeline using the LSTM model to find contextual relationship between passages and queries
- Generated embeddings using word2vec and used softmax activation to generate the answer
- The model exceeded baseline performance with both the bAbi (72.46%) and IMDB (82.8%) datasets

Single View Metrology **C++, OpenCV, Blender** **2017**

- Computed the vanishing points of an image using LSD and RANSAC
- Computed the projection and homograph matrix and generated texture maps for the XY, YZ and XZ planes
- Visualized the reconstructed 3D model using blender

API integration into Expertiza **Ruby on Rails, PostgreSQL** **2016**

- A background task was created to send files from Expertiza to the Simicheck API
- Four types of files were handles : PDF, Google Docs, Webpages and Github repos
- A view was created to display the results from Simicheck

Room Reservation System **Ruby on Rails, Postgres, Heroku** **2016**

- Developed the workflow for a Ruby on Rails application to mimic the NCSU library website
- Designed the frontend in HTML, databases in Postgres and backend in Ruby on Rails
- Deployed the application on Heroku

Virtual Network Design **HTML, CSS, JavaScript** **2015**

- Implement medium access control scheme to deliver data between two nodes for 60 seconds
- Extend the network to N nodes (user input) connected through a common bus
- Implement routing protocol to deliver data between any pair of nodes for 30 seconds