Sreenivas Venkobarao

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EDUCATION

- **University of Massachusetts, Amherst** — Amherst, MA
  Master of Science in Computer Science — *Sep. 2017 – Jun. 2019*
  - **Courses**: Computer Vision, Neural Networks, Artificial Intelligence, Introduction to Simulation
- **SSN College of Engineering, Anna University** — Chennai, India
  Bachelor of Engineering in Electronics and Communication Engineering — *Jul. 2013 – Apr. 2017*
  - **Courses**: Advanced Digital Signal Processing, Digital Image Processing, Computer Architecture, Computer Networks

SKILLS

- **Languages:** Python, MATLAB, Java • **Frameworks:** Tensorflow, OpenCV, Scikit-Learn, Keras
- **Software:** Git, Heroku • **Hardware:** Arduino

WORK EXPERIENCE

- **Computer Vision Intern** — Chennai, India
  e-Farmerce.com - Agricultural Analytics Platform — *Jul 2017 - Aug 2017*
  - Built a prototype system for identifying coconut farms from Satellite imagery. Implemented a system to extract images, label them manually, and train Deep Learning models on the data. Gained exposure to Ruby, and Python Deep Learning frameworks. Achieved 89% accuracy in predicting coconut farms.

RESEARCH EXPERIENCE

- **Xerox Palo Alto Research Center** — Palo Alto, CA
  Interactions and Analytics Lab Intern — *June 2018 - Sep 2018*
  - Working under Dr. Matthew Shreve, on building fast (and dense) annotation tools for 3D objects, and reconstructing 3D models of novel objects.

- **Computer Vision Lab, UMass Amherst** — Amherst, MA
  Camera Rotation Estimation Group — *Jan 2018 -*
  - Working under Professor Erik Learned-Miller on estimating camera rotation from a video sequence using optical flow. Implemented a novel technique to jointly align a sequence of images under camera rotation.

- **Depth Estimation from a Single Image**
  Course Project, UMass Amherst — *Oct 2017 - Dec 2017*
  - Investigated supervised and unsupervised algorithms to estimate the depth of a 3D scene from a single image. Devised novel loss-functions, and evaluated performance of different CNN architectures on various datasets.

- **Human Action Recognition from Videos**
  Undergrad Project, SSN College of Engineering, Chennai — *Dec 2016 - April 2017*
  - Worked under Dr. N. Venkateswaran, on identifying actions from videos, using CNN architectures. Designed a novel feature descriptor leveraging CNNs and classical Computer Vision approaches, and inspected performance. Gained exposure to video analysis, and popular frameworks like OpenCV, and Keras.

PROJECTS

- **RiskyClickerBot**: Python based content moderation system for Reddit, to detect harmful images and videos built with Clarifai API.
- **Rubik's Cube Solver**: Python program to generate optimal solutions given photos of the Rubik's cube.