Akshay L Chandra

https://akshaychandra.com

Education

- **Indira Gandhi National Open University** — Hyderabad, India
  Post Graduate Diploma in Applied Statistics; 85%; — *July 2017 – June 2018*
  - **Courses**: Probability Theory, Statistical Inference, Statistical Techniques, Industrial Statistics (Topics - Optimization Techniques, Decision Theory, Game Theory).
- **Jawaharlal Nehru Technological University** — Hyderabad, India
  Bachelor of Technology in Computer Science And Engineering, 76% (Top 15/300 in CSE Department); — *Aug. 2013 – May 2017*
  - **College**: Keshav Memorial Institute of Technology
  - **Major Project**: Built an intelligent web application using ASP.NET for efficient placements administration, with a prediction module that predicts students' placements with 90% accuracy.
  - **Excelled In Courses**: Mathematics, Predictive Analytics, Big Data Analytics, Design And Analysis Of Algorithms, Operating Systems, Computer Networks.

Publications

1. **Akshay L Chandra**, S.V. Desai, Vineeth N Balasubramanian, S. Ninomiya, Wei Guo. Active Learning with Point Supervision for Cost-Effective Panicle Detection in Cereal Crops. BMC Plant Methods Journal 2020.
2. **Akshay L Chandra**, S.V. Desai, Wei Guo, S. Ninomiya, Vineeth N Balasubramanian. An Adaptive Supervision Framework for Active Learning in Object Detection. British Machine Vision Conference (**BMVC**) 2019.

Research/Work Experience

- **Indian Institute Of Technology Hyderabad** — Hyderabad, India
  Research Assistant, Visual Learning And Intelligence Lab — *Dec. 2018 - Present*
  - Working under the guidance of **Prof. Vineeth N Balasubramanian** on Deep Active Learning and Plant Phenotyping in collaboration with **Prof. Wei Guo** (UTokyo).
  - Teaching Assistant to Dr. Vineeth at Summer School of AI, 2019 conducted at IIT Hyderabad.
  - Subreviewer at SIAM Conference on Data Mining 2020.
- **GGK Technologies** — Hyderabad, India
  Associate Software Engineer, AI/ML (R&D) Team — *June 2017 - Sept. 2018*
  - Optimized business processes for clients across multiple sectors like health care, retail, e-commerce by building useful prediction models, capturing customer/patient behavior patterns, mining causation etc. Exclusively worked on building a Computer Vision application that detects product pickups in a retail store from just the CCTV footage.
  - Won **Trainee-Of-The-Month** award among 28 other trainees and **Star-Of-The-Month** award for successfully incorporating an accelerating action & object detection modeling in a computer vision application.

Mentoring/Tutoring Experience

- **Udacity**. Project Reviewer & Mentor. Computer Vision Nanodegree. — *Oct. 2018 - Present*
- **EduRidge India**. Machine Learning Instructor. — *May 2018 - Dec. 2018*

Projects

- **Image & Bounding Box Annotation Slicer**: An object detection data transformer. Slices images and their bounding box annotations into smaller tiles, both into specific sizes and into any arbitrary number of equal parts.
- **Mouse Cursor Control With Facial Movements**: Controls mouse cursor with facial movements, uses Deep Learning, works with a regular webcam. Hands-free, no wearable hardware or sensors needed.
- **Automatic Image Captioning With Visual Attention**: A deep Encoder-Decoder model with Visual Attention trained on the famous COCO dataset, implemented from scratch.
- **Selfie Filters Using Facial Landmarks**: Places Snapchat like filters on faces by detecting 15 facial landmarks.
- **Robust Morse Code Converter**: Converts Morse signalled in flashlight-flicks, eye-blinks, mouse-clicks and hand gestures.
- **Alphabet Recognition Through Gestures**: Recognizes alphabet in gestures detected real-time (webcam).

Skills

- Python, PyTorch, TensorFlow, Keras, OpenCV, Numpy, Sklearn, Matplotlib, R, MATLAB, Java, SQL, C, C++, C#

Certifications

- **Deep Learning**: NPTEL's 12-week, AICTE approved certification taught by Prof. Mitesh M. Khapra of IIT-Madras. Finished in the top 5% of the online class with over 1000 students across India.
- **Computer Vision Nanodegree**: Udacity's 12-week course with 3 CV based advanced deep learning projects.
- **Deep Learning Specialization**: Coursera's 5-course specialization taught by Andrew Ng and deeplearning.ai team.
- **Oracle Certification - Java SE 6 Programmer (1Z0-851)**: Passed the exam with 100% score.