Raghul Asokan

Chennai, India · mailcorahul@gmail.com · +91 9566063156 · github.com/mailcorahul

Education

Anna University(SSNCE) — Chennai, India
Bachelor's in Computer Science *GPA: 8.6* — Aug 2012 - May 2016

Marian Mat. Hr. Sec. School — Chennai, India
Class XII State Board, 97% — June 2011 - April 2012

Work Experience

Infilect — Bengaluru, India
Deep Learning Engineer — December 2018 | Present

- Japanese and Arabic Scene Text Detection on Point of Sale Materials. Architecture: Densebox(EAST).
- Retail Shelf Parsing for General/Modern Trade using Object Detection. Architectures: SSD, RetinaNet.

Zoho Corporation — Chennai, India
Deep Learning Engineer at ZLabs — June 2016 | November 2018

- Developed an Optical Character Recognition(OCR) pipeline for Zoho Expense, an online Expense Report Software, which extracts useful receipt information such as amount, date, mode of payment and currency. This end-to-end pipeline consists of various stages such as Orientation Detection, Text Detection, Text Recognition and Information Retrieval.
  - Text Recognition architectures: CNN + BLSTM + CTC, CNN + CTC(Rosetta).
  - Text Recognition Dataset: Synthetically generated word images using various fonts, backgrounds and image transformations.
  - Single Word Accuracy(SWA) of 85%.

Projects

Neural Style Transfer
https://github.com/mailcorahul/deep_learning/tree/master/papers/neural_style_transfer
PyTorch implementation of the paper "A Neural Algorithm of Artistic Style by Gatys et. al".

Image Super-Resolution Using Deep Convolutional Networks
https://github.com/mailcorahul/deep_learning/tree/master/papers/super_resolution
PyTorch implementation of the paper for enhancing the quality of word images used for OCR Word Recognition.

- Dataset used: Synthetically generated receipt word images.
- Accuracy - Average PSNR: 19.92 dB

Other Computer Vision Projects
https://github.com/mailcorahul/computer_vision

- e-Commerce Product Duplicate Detection using Siamese Neural Networks(One shot learning).
- Text Detection using Maximally Stable Extremal Regions with increased recall and performance.
- Boundary Detection in Receipts using Structured Forests and Hough Line Transform.

Skills

Programming Languages:	Python, C, C++, Java
Deep Learning:	Numpy, OpenCV, PyTorch, Keras
Web:	HTML, CSS, Javascript, jQuery, Apache Tomcat, CherryPy
Platforms:	Linux, Windows

Other Activities

- Blogger on Medium - Towards Data Science.
- Speaker at AI and Data Science Day 2019 - Bangalore, presented a session on "A deep evolution of text detection & text recognition on natural scenes".
- Secured third place in Zia Hackathon 2018 - A Machine Learning Hackathon held at Zoho Corporation.