Raghul Asokan

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WORK EXPERIENCE

Infilect

Bengaluru, India December 2018 | Present

Deep Learning Engineer

• Training and deployment of object detection models for Retail shelf image parsing. Architectures: SSD, RetinaNet.

• Developed text detection models(arabic and japanese) for Analysis of retail point-of-sale materials. Architecture: Densebox(EAST).

Zoho Corporation

Chennai, India

Deep Learning Engineer at ZLabs

June 2016 | November 2018

- Developed end-to-end Optical Character Recognition(OCR) Pipeline for Zoho Expense an online Expense Report Software.
- Training and productionization of deep learning models for Text recognition. Architectures: CNN + BLSTM + CTC, CNN + CTC(Rosetta), SWA: 0.85
- Synthetic data generation.
- Built data annotation tool for Text recognition.

Projects(https://github.com/mailcorahul/deep_learning)

Neural Style Transfer

PyTorch implementation of the paper "A Neural Algorithm of Artistic Style by Gatys et. al".

Image Super-Resolution

- PyTorch implementation of the paper "Image Super-Resolution Using Deep Convolutional Networks" 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.

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

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.