Arun Ponnusamy

Computer Vision Research Engineer

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Visakhapatnam, India.

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Skills

Passionate about Image Processing, Computer Vision and Machine Learning.

Key skills - C/C++, Python, Keras, TensorFlow, PyTorch, OpenCV, dlib, Flask, OpenCL, CUDA, Matlab/Octave, Assembly/Intrinsics, CMake, Make, Git, Linux CLI.

Experience

care.ai

Computer Vision Research Engineer

JAN 2019 - PRESENT, VISAKHAPATNAM

Key areas worked on - image classification, object detection, action recognition, face detection and face recognition for edge devices.

Tools and technologies - TensorFlow/Keras, TensorFlow Lite, TensorRT, OpenCV, dlib, Python, Google Cloud.

Devices - Nvidia Jetson Nano / TX2, Google Coral Edge TPU.

1000Lookz

Senior Computer Vision Engineer

JAN 2018 - JAN 2019, CHENNAI

Key areas worked on - head pose estimation, face analysis, image classification and object detection.

Tools and technologies - TensorFlow/Keras, OpenCV, dlib, Flask, Python, AWS, Google Cloud.

MulticoreWare Inc.

Software Engineer

JULY 2014 - DEC 2017, CHENNAI

Key areas worked on - image processing, computer vision, parallel processing, software optimization and porting.

Tools and technologies - OpenCV, dlib, C/C++, OpenCL, CUDA.

Education

PSG College of Technology / Bachelor of Engineering

JULY 2010 - MAY 2014, COIMBATORE

Bachelor's degree in **Electronics and Communication Engineering** with CGPA of **8.42** (out of 10).

Favourite subjects - Digital Electronics, Embedded Systems and C Programming.

Notable

Efforts

Served as one of the Joint Secretaries of Institution of Engineers(I) (students' chapter) of PSG College of Technology.

Secured first place in Line Tracer Event in Kriya '13, a Techno management fest conducted by Students Union of PSG College of Technology.

Actively participated in FIRST Tech Challenge, a robotics competition, conducted by Caterpillar India.

Official writer at <u>Towards Data Science</u> (online publication) covering Computer Vision and Machine Learning.

Technical reviewer for the books <u>Mastering OpenCV 4</u>, <u>Mastering OpenCV 4 with Python</u>, <u>OpenCV 4 for Secret Agents</u> published by Packt.

Courses & Certifications

<u>Practical Deep Learning for Coders - Part 1 (2018)</u> from **fast.ai**, taught by *Jeremy Howard* and *Rachel Thomas*.

<u>Convolutional Neural Networks</u> from **deeplearning.ai** taught by *Prof. Andrew Ng.*

Machine Learning from **Stanford University** taught by *Prof. Andrew Ng.*

<u>Heterogeneous Parallel Programming</u> from **University of Illinois**, taught by *Prof. Wen-Mei Hwu*.

Personal

Projects

cvlib

A simple, high level, easy-to-use open source computer vision library for Python. (published as a pip installable python package)

cvlib.net

Computer Vision Blog

A blog on image processing / computer vision / machine learning with simple and accessible posts with source code and intuitive explanations.

arunponnusamy.com

Public

Speaking

Delivered a talk on "Generative Adversarial Networks (GAN)" at <u>Chennai</u> <u>School of Al Meetup</u> as an invited speaker.

Organized and gave a talk on "Learning Roadmap for CV & ML" at Computer Vision and Machine Learning Meetup - Chennai.

Interests

Reading, writing, watching sensible movies, watching educational videos on YouTube, doing interesting MOOCs, listening to music and podcasts, exploring new places.