Arun PATRO

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EDUCATION

IIT KHARAGPUR, INDIA
Dual Degree in Electrical Engineering
(M.Tech. in Signal Processing)
Expected June 2018
Cum. GPA: 8.1

FIITJEE J.C., HYD, INDIA
Junior College
Grad. May 2013
Aggregate: 95.7%

SOCIAL

Web: **arunpatro.com**
Github: **arunpatro**
Twitter: **arunpatro**

COURSEWORK

Statistical Signal Processing
Machine Learning
Digital Signal Processing
Digital Image Processing
Embedded Systems
Computer Architecture + OS
Data Communication
Control Systems
Product Development
Copyright Law
Constitution Law

SKILLS

Languages:
C • JS • Python
Tools and Packages:
Python Data Science + ML Stack
Front End HTML + JS + CSS
Hardware:
Arduino • Raspberry Pi
Intel Edison
Cloud Proficiency:
Azure

AWARDS

Academic:
All India Rank of 1214 in JEE Advanced
Duke TIP, (Duke University + IIM-A)
Theatre:
Bronze in English Dramatics, IIT-KGP
Silver in English Dramatics, IIM-B

HOBBIES

Theatre • Debating
Table Tennis • Swimming
Rubik's Puzzles

INDUSTRY EXPERIENCE

MYNTRA DESIGNS | Data Science for Supply Chain Inbound
March 2019 - Now | Bangalore, India
- Style Grading: Quantized performance of a style based on similar styles for Optimal Buying
- Deduplication: Scaled deduplication models to cover various articles
- Selection Gap: Quantify optimal style width / catalog curation density of a cluster
- Regional Utilisation: Optimal dispatch of POs to inwarding warehouses

MYNTRA DESIGNS | Experimental Image Sciences
May 2017 - Mar 2019 | Bangalore, India
- AttnGAN - Generated mixed new designs using interpolation of latent vectors
- Proposed different gradient measure loss functions for estimating noise vectors in GANs

GENERAL ELECTRIC HEALTHCARE | Automation • IoT
May 2016 - July 2016 | Bangalore, India
- Automated assembly process of X-Ray Tube Collets using servo motors & CCD camera
- Increased precision (by 2x) of focal spot detection during assembly using canny filters

CYIENT | IoT • Embedded Systems
May 2015 – July 2015 | Bangalore, India
- Developed generic add-on modules to connect industrial machines to the cloud
- Supported multiple sensor and actuator integrations using USB, WiFi and BLE

PUBLICATION

Let AI Clothe You: Diversified Fashion Generation
Computer Vision – Workshops, ACCV 2018
Rajdeep H. Banerjee, Anoop Rajagopal, Nilpa Jha, Arun Patro, Aruna Rajan

Evaluation of Loss Functions for Estimation of Latent Vectors from GAN
International Workshop on Machine Learning for Signal Processing (MLSP)
Arun Patro, Vishnu Makkapati, Jayanta Mukhopadhyay

Enhancing Symmetry in GAN Generated Fashion Images
BCS SGAI International Conference on AI-2017
Vishnu Makkapati, Arun Patro

PROJECTS

AUTOMATED FASHION DESIGN USING GAN | Master's Project
Aug 2017 | Mentor: Prof. Jayanta Mukhopadhayay & Vishnu Makkapati (Myntra)
Modelling DCGANs to improve quality of images for periodic data (stripes, checks, etc).
Experiments with different GAN architectures for texture synthesis and analysis. Inversion of GANs to understand data distribution in latent space, and create mix-and-match designs.

BLUR KERNEL ESTIMATION | Bachelor's Project
Aug 2016 - Apr 2017 | Mentor: Prof. Rajiv Ranjan Sahay
Estimation of guassian blur kernel parameter (sigma) to quantify the degree of defocus blur of non-uniformly blurred images using Deep Learning. Trained a CNN (on Brodatz).

AUTONOMOUS GROUND VEHICLE RESEARCH GROUP
2014 - 2015 | Mentor: Prof. Devasish Chakravarty
- Detecting obstacles and lanes in grassy and city environments - Computer Vision Team
- AGV competes in Intelligent Ground Vehicle Competition and Mahindra Rise Prize

SOCIETIES

Governor of Encore theatre troupe (7 theater productions, 4 street plays)
Team Leader of Outgoing Exchange, AIESEC IIT Kharapgur
Cadet at National Cadet Corps (Indian Air Force)