

SAMARJIT KARMAKAR

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EDUCATION

National Institute of Technology, Warangal
Bachelor of Technology
Department of Computer Science and Engineering

August 2016 - Present
GPA (till 6th sem): 8.40/10.00

WORK EXPERIENCE

Microsoft India Development Center, Hyderabad, India
Software Engineering Intern, May 2019 - July 2019

- Worked with the Bing Retail Product Catalog Team at Search Technology Center India (STCI) giving data-driven intelligent solutions.
- Our project titled "Product2Vec: Efficient Representations for Structured Product Information" won the Runner-Up prize for "Best Intern Paper/Poster" at MLADS-SYNAPSE 2019, Microsoft's internal ML, AI and Data Science conference.

RESEARCH EXPERIENCE

Nevronas.ai, NIT Warangal, India
Research Member, Nov 2018 - present

A young and independent research group born out of Innovation Garage@NITW focusing on problems in Deep Learning and its applications in Speech, Computer Vision and Natural Language Processing.

MILE Lab, Indian Institute of Science, Bangalore
Summer Research Fellow, May - July 2018

Guided by: Dr. A. G. Ramakrishnan and Mr. Ram Krishna Pandey

Fundamental research work in improving deep learning based super-resolution models, such as SRCNN and ESPCN, without effecting the computational cost while testing. [arXiv]
Implemented multiple models for achieving real time neural style transfer with reduction in the number of parameters. [arXiv]

MAJOR PROJECTS

Autoencoder Based Architecture for Fast & Real Time Audio Style Transfer

Authors: Dhruv Ramani, Samarjit Karmakar, Anirban Panda, Asad Ahmed, Pratham Tangri

In Audio Style Transfer, a stylized audio is generated by imposing the style of a reference audio on the content of a target audio. We improve on the current approaches which use neural networks to extract the content and the style of the audio signal and propose a new autoencoder based architecture for the task. [arXiv] (accepted at MedPRAI 2019)

Real Time Accent Transfer

Authors: Samarjit Karmakar, Dhruv Ramani, Asad Ahmed, Pratham Tangri, Anirban Panda

While there has been a plethora of work in the field of audio and image style transfer, accent transfer is also an interesting problem which has not been tackled yet. We attempt to solve this problem with a new proposed architecture.

TECHNICAL STRENGTHS

Broad Domains	Algorithms, Deep Learning, Data Science
Programming Languages	C, C++, Python, Java, JavaScript, SQL
Packages & Frameworks	PyTorch (deep learning framework), Latex, Django

OTHER PROJECTS

Breed Relationships in Cats

github.com/samarjit98/Cat-Breeds

Deriving relationships between objects has been far studied in data mining. We take this problem further by deriving interesting relationships between cat breeds using the deep representations learnt by a Convolutional Neural Network (CNN).

Technologies Used: PyTorch

Codechamp Online Judge Template

github.com/samarjit98/NITW-OJ

An online judge where a user can submit his/her code and have it tested on several test cases on a remote server.

Technologies Used: Python Socket Programming

Subset C Compiler

github.com/samarjit98/Language-Processors

A simple intermediate code generator for a subset of C language along with several important algorithms for compiler design.

Technologies Used: Flex, Bison, C

AWARDS & HONOURS

Runner-Up prize for "Best Intern Paper/Poster"

Microsoft Machine Learning & Data Sciences Conference - SYNAPSE 2019

Project title: "Product2Vec: Efficient Representations for Structured Product Information"

Institute Merit Scholarship, NIT Warangal

B.Tech First Year, 2016-2017

Mamraj Agarwal Rashtriya Puraskar

Presented by Governer of West Bengal

Raj Bhavan, Kolkata, 2016

Recognition for achieving 96.4% in AISSCE, 2016

Outstanding Student of the Year

Birla High School, Kolkata, 2016