

Gyanig Kumar

SENIOR UNDERGRADUATE, COMPUTER SCIENCE

32A KP-7
KIIT University
Bhubaneswar, Odisha, India
1928028@kiit.ac.in | gyanig.kumar@gmail.com
Webpage : <https://p4rZ.github.io>
Github : www.github.com/p4rZ
+91-81-178-82184

EDUCATION	Kalinga Institute of Industrial Technology , Odisha, India <i>Bachelor of Technology</i> Computer Science and Systems Engineering GPA: 9.06/10 (Current) Jul' 19 - Jul'23
	DAV Chandrasekharapur , Odisha, India <i>Higher Secondary Education</i> , Science and Engineering Percentage: 86% Jul' 17 - Jul' 29

EXPERIENCE & VOLUNTEERING	Indian Institute of Science, Bengaluru (<i>Research Intern</i>) April' 22 - Present (<i>Computer Vision & Human Computer Interactions</i>) Working at Intelligent Inclusive Interaction Design (I3D) Lab, under the guidance of Dr. Pradipta Biswas
	Amygdala-AI (<i>Research Apprentice</i>) May' 22 - Present (<i>Computer Vision & Speech Learning</i>) Working in the domain of Audio-Visual Learning Tasks
	Google Developer Student Community, KIIT (<i>Team Member</i>) Oct' 21 - Present Working on various prospects like EduTech Platform for ML, organize events,etc
	Konnexions Society, KIIT (<i>Teaching Assitant</i>) Nov' 21 - April' 22 Teaching Instructor for Data Science & Machine Learning Appreciation Letter
	Design Thinking Labs, KIIT (<i>Student Member</i>) Jul' 19 - Jan' 20 Case Study on Posture Improving Wearable based on CAD & IoT perspective

AWARDS & ACHIEVEMENTS	Official Twitch Affiliated Streammer under Science & Technology 2020
	Participated in Water Rover Competition IIT BOMBAY Techfest 2019
	Awarded 3rd Position in C.S.I.R. Innovation Awards 2018
	Awarded Best in Smart Mobility Project in Atal Marathon , AIM, GOI 2017

RESEARCH INTERESTS	<i>Working</i> : Deep Learning Research on Computer Vision, Language Models, Graph Neural Networks, Software, Robotics
	<i>In-Depth</i> : Gaze Estimation, Landmark Detection, Few-shot Learning, C-Sharp/Python Development

ACADEMIC PROJECTS	Extrapolating data using Few Shot Learning on Famous "Look, Listen Learn" paper <i>Supervisor : Dr. Rajdeep Chatterjee</i> Dec'21 - Present
	<ul style="list-style-type: none">- Using the Kinetics700 Dataset, created subset of 34 Classes for training in multiple variations of <i>Fewshot learning & Contrastive Learning</i>- Achieving a proper <i>Audio-Visual Task Correspondence</i>, required producing accurate sample rate audios with best frame selection for individual tasks- Produced different <i>FFT, Mel-Filter Bank spectrum representations</i> of audio for Feature Extraction

Chat rooms with multilingual conversation support

Supervisor : Prof. Bindu Agarwalla

Feb '22 - April '22

- Novel introduction of translating any incoming messages on a chat platform
- Simple Web server application using Express.js & Socket.io for creating Bi-directional messaging passing with simple query handling process
- Google Translate API provides faster translation and dynamic language support
- [Heroku](#) — [Github](#)

COURSE PROJECTS

Lox : Interpreter for Python-like language

Course : Compilers Design & Object Oriented Program

Sept '20 - Dec '20

- Built an end-to-end interpreter that takes Python-like syntax
- Implemented Features such as *parsing, control flow, hashes, garbage collection, superclasses* etc.
- [Github](#)

PERSONAL PROJECTS

Kaggle Participations

Course : Machine Learning & Deep Learning

Jan '21 - Present

- Participated in Research Code Competition *PetFinder.my - Pawpularity Contest* implementing recent models using *transfer-learning, ensemble learning, etc* Models like *BiT, ViT, EffNetB2-B5, MobileBert, Swin and Fastai* on a diverse dataset of image and tabular data, achieved 18.05839 RMSE
 - [Github](#) — [Kaggle](#)
- Implemented Multi-class Neural Net SGD Classifier on MNIST Fashion dataset, achieved 98.21% accuracy
- Implemented *Convolutions, dropout, GANs and Dimension Reduction* on sigmoid Binary Image Classifier, achieved 99.2% accuracy
 - [Github](#)

Skin-Lesion ISIC Challenge using recent benchmark models of Medical Image Segmentation

Course : DeepLearning in Medical Data

Sept '20 - Feb '21

- Worked on ISIC 2020 Challenge dataset, with different UNet models with modified architectures
- Used recent trends of Image Augmentation like *MixUp & CutMix* to improve pipeline
- K-Fold learning was implemented to produce best set of results as well
- Focus on *Transformer Net Ensemble with UNet* gave best results with 78% Accuracy

CERTIFICATES ACHIEVEMENTS

DeepLearning.AI TensorFlow Developer, *DeepLearning.ai*

Jan '22

5th Summer School on AI, CVIT, IIIT Hyderabad

Sept '21

Machine Learning, Stanford

July '20

Discrete Math and Analyzing Social Graphs, HSE

July '20

Calculus and Optimization for Machine Learning, HSE

June '20

Introduction to Programming, CS50

Sept '19

COMPUTER SKILLS

Languages: C, C++, Python, CSharp, Bash, L^AT_EX

Frameworks: TensorFlow2, Pytorch, Tensorflow.js, SciKit-Learn

Libraries: Numpy, Pandas, Matplotlib, Keras, Librosa, Kivy

Extras: MATLAB, R.O.S. , OpenCV, Fusion 360, Unity-3D