# KUNAL JETHURI

**orion29.github.io**

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## EXPERIENCE

### RESEARCH INTERN

**Defence Research and Development Organization**

📅 June 2019 – Sept 2019   📍 Delhi, India

- Worked on several Natural Language Processing projects such as Sentiment Analysis, Voice recognition, etc.
- Built a Spoken Language Identification model using Mel spectrogram and convolution recurrent neural network.

## PROJECTS

### Satellite Image Segmentation for Flood Damage Analysis

Sept 2020 – Nov 2020

- Used UNET with Resnet-34 as the backbone for multiresolution, multisensor, and multitemporal satellite images.
- Showed that this model can perform building footprint and flooded building segmentation tasks.
- This approach is applicable to different types of flood events and could reduces the amount of time needed to produce flood maps for first responders compared to current methods.

### Brain MRI Segmentation

Aug 2020 – Sept 2020

- Image segmentation is one of the most important tasks in medical image analysis and is often the most a critical step in many clinical applications
- The goal was to use UNET with Resnet34 as a backbone for automatic extraction of lower-grade gliomas with shape features.

### Neural Style Transfer

Dec 2019

- Style transfer relies on separating the content and style of an image. Given one content image and one style image, we aim to create a new, target image which should contain our desired content and style components:
  - objects and their arrangement are similar to that of the Content Image
  - style, colors, and textures are similar to that of the Style Image

### Spoken Language Identification

Jun 2019 – Sep 2019

- Spoken language is one of the distinctive characteristics of the human race.
- The goal of spoken language identification is to assign language labels to audio files containing utterances in one of the languages from a predefined set.

## ACHIEVEMENTS

- Secured 460 international rank in IMO (International Maths Olympiad).

## EDUCATION

Bachelor of Technology (Electronics & Communication)

**GURU GOBIND SINGH INDRAPRASTHA UNIVERSITY**

📅 August 2017 – Present

- CGPA: 8.3/10

12th standard

**V.N.B.S.S School**

📅 April 2015 – March 2017

- Percentage: 90%

High School

**Green Fields School**

📅 April 2013 – March 2015

- CGPA: 10/10

## COURSES

### UNDERGRADUATE

- Introduction to Programming (C++)
- Data Structures and Algorithms
- Operating Systems
- Computer Architectures
- Microprocessors
- Database Management System

### MOOCS

- Coursera's Machine Learning
- Udacity's Intro to Deep Learning with PyTorch
- Coursera's Convolutional Neural Network
- Coursera's Sequence Models
- CS230 Deep Learning (Stanford Online)
- fastai course-v4 (2020)

## SKILLS

**Languages:**

Python • C++ • C

**Frameworks:**

PyTorch • scikit-learn • Fastai

**Other Skills:**

Computer Vision • NLP • Flask

- Data Structures and Algorithms