# Yuvi Dhelawat

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### **EDUCATION**

### Indian Institute of Technology, Patna

Bachelor of Technology in Electrical Engineering, CPI - 8.62

Patna, India 2018 – 2022

Senior Secondary Education, CBSE

94.4%

Jaipur, India 2018

# PROJECTS

# Parameter Estimation in Optical Fibre Systems using Deep Learning | Python, MATLAB, Deep Learning

- Course Project for EE-304 Design Lab, under Dr. Sumanta Gupta (Associate Professor, IIT Patna).
- Generated dataset with over 30,000 signals using MATLAB for an optical fibre system.
- Trained deep learning models for estimating the type of modulation and length of the fibre for 75 different combinations of OSNR, Pulse Peak Power and Modulation Frequency.
- Loss for the prediction of length stood at 1.93 (MAE), while the estimation for type of modulation showed close to 99% accuracy.
- Source Code Link

# Speech to Text Converter | Python, Librosa, Streamlit, Signal Processing, Deep Learning

- Trained a simple voice command recognition model.
- Used Google Speech Command's dataset having over 65,000 voice samples for 31 categories. Used Librosa for preprocessing the audio.
- Trained a CNN model using tensorflow, capable of detecting set of 31 words with test accuracy 87.2%.
- Developed a WebApp using **Streamlit**. Deployed on Heroku.
- Source Code Link | Deployment Link

## Flipr Hackathon - COVID-19 Prediction | Python, Exploratory Data Analysis, Machine Learning

- Participated in 6th Flipr Hackathon and completed the ML task with highest possible score for Accuracy.
- Used COVID data from 787 cities, with a total of 12 different categories, like number of hospitals, size of city, female population, number of tourists.
- Made predictions for the number of COVID cases using Random Forest.
- Source Code Link

## CS-384 Course Projects | Python, SQL, Regex, Pandas, Tkinter, GUI Development

- Created a Quiz Portal for Academic Purposes using Tkinter with features such as login/sign up, exporting scores, results as csv files, etc. Source code link
- Created Basic Notepad using Tkinter with features matching those of a regular notepad. Source code link

### Programming Skills

Most experienced with: Python, C, C++, Tensorflow, Streamlit, Tkinter

Somewhat experienced with: HTML, CSS, Javascript, SQL, Django, Flask, MATLAB, Verilog HDL

Familiar tools: Git, GitHub, LTSpice, ModelSim

# OTHER ACHIEVEMENTS/ EXTRA CURRICULARS

- Rated 1843 on CodeChef and Rated 1400 on Codeforces.
- Ranked 139, 573 and 551 in January Cook-off, February Long-Challenge and May Cook-off on Codechef respectively.
- Solved Over 500 questions on various competitive programming platforms such as Codeforces, Codechef, Leetcode, etc.
- Secured AIR 4775 in JEE Mains and AIR 5835 in JEE Advanced in 2018.
- Overall Fest Coordinator of the Annual Techno-management Fest of IIT Patna, Celesta for 2020 Edition.
- Coordinator, Content and Management at Student's Association for Alumni Relations, IIT Patna.
- Currently writing my first Fantasy Fiction Novel The Knights of Thea.
- Represented IIT Patna in badminton at the 53rd Inter IIT Sports Meet, 2018.