Piyush Tiwary

A-534 Boys' Hostel IIT Patna

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EDUCATION

Bachelor of Technology **8.25/10**
Electrical Engineering, IIT Patna (5th Semester) *2017-21*

Intermediate/+2 **79.84%**
Loknete Vyankat Rao Hiray College, Nashik (MSBE) *2017*

Matriculation **10.0/10.0**
Kendriya Vidyalaya CRLY, Solapur (CBSE) *2015*

EXPERIENCE

Crio Summer of Doing - 2019 **Remote**
Crio.Do *May 2019 - June 2019*

- Developed Back-end of **Q-Eats** (a food Ordering App) using **Spring framework** in Java.
- Learnt and implemented many Industry related tools/technologies like - REST APIs, MongoDB, Caching, Multi-threading, Docker and RabbitMQ.
- Made an *Order Page* for QEats in the Capstone Challenge enabling user to see his/her orders and provided various functionalities.

Research & Development Intern, VideoKen **Bangalore**
Guide: Prof. Manish Gupta, Co-founder VideoKen *May 2019 - July 2019*

- Worked as a part of R&D Team and explored different methods of Speaker Diarization.
- Studied & Implemented **UIS-RNN** in *Tensorflow*.
- Made a primitive model able to **diarize 2 speakers** with maximum delay of ~30 seconds.
- This model will be deployed to diarize "*Interview*" type of audios.

Hybrid Classifier for Smart Agriculture Cyber Physical System **IIT Patna**
Guide: Prof Sudhir Kumar, IIT Patna & Prof Sajal .K. Das, Missouri University *Summer 2018*

- Worked on Berkeley's Intel Lab Dataset to Localize the positions of wireless sensor nodes.
- Implemented a Hybrid Classifier to classify and predict location of each sensor using various combinations of Classifiers like Decision Tree, Random Forest, k-Nearest Neighbor and SVM.
- Achieved an overall **95% accuracy** and **1.16m localization error**.

PUBLICATIONS

- Ankur Pandey, **Piyush Tiwary**, Sudhir Kumar, and Sajal K Das. A hybrid classifier approach to multivariate sensor data for climate smart agriculture cyber-physical systems. In Proceedings of the 20th International Conference on Distributed Computing and Networking, ICDCN '19. ACM, 2019. ***"click here to view"***

COURSES

- Foundations of Machine Learning, Advanced Machine Learning, Introduction to Data Science, Data Structures & Algorithms, Computational Complexity, Human Computer Interaction, Linear Algebra, Complex Analysis, Partial Differential Equations

ACHIEVEMENTS

- Secured a Global Rank of **60** in Codechef July Long Challenge'19.
- Specialist(Blue) on Codeforces and 4-star(Purple) on Codechef.
- Ranked in top 5000 on UVa Online Judge.
- Secured **All India Rank 4880** in JEE Advanced 2017 among **150,000** candidates.

PROJECTS

History Scrapper **July 2019 - Present**
Google Chrome Extension *Tensorflow, Flask, Python*

- Building a Chrome extension which provides user with their Browsing history and summary.
- The aim is to deploy Deep Learning techniques to predict most likely site the user is going to visit.
- Built the backend of the extension using **Flask** framework in python.

Notes Seperator **May 2019 - June 2019**
Developer Student's Club *Tensorflow, Python*

- Developing an app for students of IIT Patna which can automatically detect whether a given image is of someone's notes or not and will suggest you to delete them.
- Implemented different CNN architectures such as *LeNet*, *AlexNet*, *VGGNet*, *GoogleNet* and *ResNet* for classification.

Crime Predictor **Jan 2019 - April 2019**
Guide: Prof Sourav Kumar Dandapat, CSE Dept, IIT Patna *Sklearn, Python*

- Project to Forecast crimes in the city of California using OSN dataset.
- Using various ML algorithms (Decision Tree, Random Forest, SVM, Naive Bayes, etc) to see which one best fits the data most accurately.

Celvika **Jan 2018**
First Year Individual Project *Tensorflow, Python*

- Used the concept of **LSTMs** and **RNNs** to make a Real time primitive chatbot capable of doing conversation through GUI (like command line or shell).
- The bot is modeled using Tensorflow's seq2seq module with attention. The architecture uses 3 layers which can be configured to be either LSTM or GRU based.

TECHNICAL STRENGTHS

- **Programming Languages:** C/C++, Python, Haskell, Bash, Java.
- **Algorithmic Toolbox** - *University of California, San Diego*
- **Database:** MySQL, MongoDB.
- **Operating Systems:** Windows, Linux - (Ubuntu, Fedora, Arch).
- **Others:** Docker, RabbitMQ, LaTeX, Matlab, Octave, Arduino, R.

POSITIONS OF RESPONSIBILITY

- **Project Mentor** (*Developer Students Club IIT Patna (powered by Google)*): Conducted classes and workshops for students to make them familiar with Deep Learning and tools like tensorflow and pytorch..
- **Coordinator, Events and Operation Committee - Celesta'19** (*Technical Fest of IIT Patna*): Working in a team of 4 to coordinate and manage all the events of Celesta.
- **Badminton Coordinator** (*IIT Patna*): Lead the Badminton team of IIT Patna in various Sports tournament. Represented IIT Patna in **51st** (at IIT Madras) and **52nd** (at IIT Guwahati) **Inter IIT Sports Meet** along with 4 other teammates.