Piyush Tiwary

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Education

2017-2021 (Expected)	**Indian Institute of Technology Patna**, *Bachelor of Technology in Electrical Engineering*, CGPA: *8.25/10.0* (After 4 Semesters).
2016-2017	**Intermediate/+2, MSBE**, *LVH College*, Nashik, *79.84%*.
2014-2015	**Matriculation, CBSE**, *K.V.CRLY*, Solapur, CGPA: *10.0/10.0*.

Experience

May 2019 - July 2019	**Research & Development Intern**, VIDEOKEN.
	○ 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.
May 2019 - June 2019	**Crio Summer Of Doing - 2019**, CRIO.DO.
	○ 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.
Summer 2018	**Hybrid Classifier for Smart Agriculture Cyber Physical System**, IIT PATNA, Guide: Prof Sudhir Kumar, IIT Patna & Prof Sajal .K. Das, Missouri University.
	○ Worked on Berkeleys 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.
	○ Achieved an overall **95% accuracy** and **1.16m localization error**.

Publications

ICDCN'19	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"***

Achievements

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

Projects

July 2019 -
Present
History Scrapper, Google Chrome Extension.
- 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.

May 2019 -
June 2019
Notes Seperator, Developer Student's Club.
- 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.

Jan 2019 -
April 2019
Crime Predictor, Data Science Course Project CS244.
- 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.

Jan 2018
Celvika, ChatBot.
- 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 Skills

Language C, C++, Python, Haskell, Java, Bash

Tools and Libraries Docker, Flask, Tensorflow, PyTorch LATEX, Matlab, SpringBoot

Courses

Computer Science Foundations of Machine Learning, Advanced Machine Learning, Introduction to Data Science, Data Structures & Algorithms, Computational Complexity, Human Computer Interaction

Mathematics Linear Algebra, Complex Analysis, Partial Differential Equations, Probability Theory and Random Processes

Coursera Algorithmic Toolbox, Algorithms on Strings, Convolutional Neural Network, Discrete Mathematics, Combinatorics and Probability

Positions Of Responsibility

March 2019 -
Present
Project Mentor, DEVELOPER STUDENTS CLUB IIT PATNA.
- Mentored 2 Deep Learning Based projects - Notes Seperator & Interview Assistant.
- Conducted classes and workshops for students to make them familiar with Deep Learning and tools like tensorflow and pytorch.

Aug 2018 -
Present
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.