

Nishant Singh Pall

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Education

Punjab Engineering College (Deemed To be University)

Bachelor of Technology in Mechanical Engineering

Overall GPA: 7.72 based on 5 semesters

Chandigarh, India

Aug. 2018 – Present

Government Model Senior Secondary School

Senior School Examination, CBSE-2018

Overall Score: 90.2 Percent

Chandigarh, India

Aug. 2016 – Mar 2018

Experience

Research Assistant

German Aerospace Center (DLR)

October 2020 – April 2021

Cologne, Germany

- Obtained and cleaned data using conventional NLP techniques for training ASR models.
- Leveraged Speech-to-Text models and scorers from Mozilla to evaluate performance on various generic datasets.
- Used the kenLM toolkit and a corpus consisting of software engineering jargon to generate scorer.
- Achieved near perfect BLEU score on corpus obtained from course provider websites.

Software Engineering Intern

BuildAR

December 2020 – April 2021

Panchkula, India

- Built front end components using ReactJS alongside handling React-Router for easier navigation.
- Worked on UI/UX design using recommended practices to maintain persistent design and commonality.
- Developed SQL scripts for handling user data and communicating with the database.
- Worked on EJS templates that would in turn use nodemailer to send particular emails.

Machine Learning Intern

Appcilious pvt. ltd.

August 2020 – September 2020

Bengaluru, India

- Carried out sentiment analysis of reviews scrapped from Playstore review section of popular applications.
- Achieved expected design of workflow from obtaining data to deploying the API

Projects

Particle Identification

June 2020 – August 2020

- Analysed particle decay into muon-antimuon pairs using XGBoost to obtain the mass of Z boson with loss 0.05.
- Designed a model that is able to discriminate electromagnetic showers from the background basetracks.
- Identified showers using ANNs and RNNs as a result of interaction of Dark matter scattering with lead nuclei.
- **Tech Stack:** Python3, Tensorflow 2.0, PlaidML

Multi Language Neural Machine Translation

April 2020 – June 2021

- Implemented attention mechanism alongside Teacher forcing to an encoder-decoder structured RNN.
- Trained models on English, Spanish, and German Languages with the help of GloVe embeddings
- Achieved the best and worst BLEU scores as 32.08 and 26.07 respectively.
- **Tech Stack:** Python3, Keras, PlaidML

Babi ChatBot

July 2020 – August 2020

- Implemented the underlying concepts in the End-to-End Memory Networks research Paper.
- Developed a Q&A chatbot using the bAbI dataset released by Facebook Research.
- Achieved 94% accuracy on the vast corporal dataset.
- **Tech Stack:** Python3, Keras, SpaCy

Technical Skills

Languages: Python3, C++, SQL, JavaScript(NodeJS), Typescript, HTML/CSS

Tools/Libraries: Git, Neovim, Pytorch, Tensorflow 2.0, Keras, ReactJS, Express