

# Nishant Singh Pall

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## Education

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### Punjab Engineering College (Deemed To be University)

*Bachelor of Technology in Mechanical Engineering*

Overall GPA: 7.36 based on 4 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

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### Research Assistant

October 2020 – April 2021

*German Aerospace Center (DLR)*

*Cologne, Germany*

- Carried out research to improve state of the art speech recognition models.
- Implemented Deepspeech model from Mozilla and fine tuned the scorer file using the kenLM toolkit.
- Fitted the model to identify corpus consisting of software engineering jargon.
- Achieved 95% accuracy on corpus scraped from websites providing education in computer science.

### Software Engineering Intern

December 2020 – April 2021

*BuildAR*

*Panchkula, India*

- Used ReactJS to build front-end and improved user experience.
- Created chat-bots for clients providing healthcare and home services to ensure better customer convenience.

### Machine Learning Intern

August 2020 – September 2020

*Appcilious pvt. ltd.*

*Bengaluru, India*

- Carried out sentiment analysis of reviews on Playstore.
- Implemented Attention Mechanism to translate non-English reviews.

## Projects

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### Particle Identification

June 2020 – August 2020

- Analysed particle decay into muon-antimuon pairs and figured out the mass of Z boson with loss 0.05.
- Performed particle identification using data generated by the detector systems with log loss 0.55.
- Designed a model that is able to discriminate electromagnetic showers from the background basetracks.
- Identified showers as a result of interaction of Dark matter scattering with lead nuclei.
- **Tech Stack:**Python3, Tensorflow 2.0, 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.
- Trained the Encoder-Decoder Neural Network and achieved 0.94 accuracy on the validation data.
- **Tech Stack:**Python3, Keras, SpaCy

### Deutsch-English Neural Machine Translation

August 2020 – September 2020

- Implemented attention mechanism to an encoder-decoder structured Recurrent Neural Network.
- Achieved the best and worst BLEU scores as 32.08 and 26.07 respectively.
- **Tech Stack:**Python3, Tensorflow 2.0, NLTK

## Technical Skills

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**Languages:** Python3, C++, SQL, JavaScript, HTML/CSS

**Tools/Technologies:** Git, Docker, Neovim, Tensorflow 2.0, Keras, ReactJS

## Position of Responsibility

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### ACM-CSS

- Led the Machine Learning group of the society and taught the fresher's about underlying concepts in ML/NLP.

### Junior Einstein

- Volunteered to work for education and holistic development of underprivileged kids.