



Yash Khatri

B.Tech – Mechanical Engineering

Gender: Male

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Educational Qualification

Year	Degree/Examination	Institution/Board	CGPA/Percentage
2019-Present	B.Tech- Mechanical Engineering	NIT, Tiruchirappalli	8.29
2019	Class XII	Our Own High School, Al Warqa'a, UAE, CBSE	91.4%
2017	Class X	Our Own High School, Al Warqa'a, UAE, CBSE	10

Academic Achievements

- Stood among the top 50 students in OOHS, AISSCE 2019.
- Secured a SAT score of - 2380

Internship Experience

Research and Development Intern

June 2021 – August 2021

Mele Robotics | Dubai, U.A.E

- Gathered information on the latest used engines for UAVs and researched about various parts needed for the production. Created excel sheets to differentiate the data and make the most viable choice.
- Gained insights about the various parts required to manufacture a complete UAV. Use of MATLAB to compare various engine performances. Dealt with Gantt charts to manage the entire procedure.
- Trainee under the CTO where I gained experience related to 3-D model of complex structures. Exposed to Gearbox designing using Kiss soft and SolidWorks and the necessary calculations behind them.

Intern

June 2021 – July 2021

NSIC | India

- Gained experience of CAD, CAM, and CAE as to how they are applied in industrial applications.
- Worked on 2D and 3D models with basic knowledge of modelling.
- Used various tools of SolidWorks for the same to make visualization better.
- Worked on various projects and assemblies such as cycle, quadcopter and 4-cylinder engine.

Other Projects

Web – Development

- Created multiple interactive and responsive sites using HTML, CSS, and JavaScript.
- Used react to create a site which detects the location of a face present in the URL given to the site.
- Made an API for the backend of the app and used bcrypt to store the password as a hash.
- Used knex to connect the backend of the app to the database,
- Finally connected the frontend, backend and the database using Heroku.
- <https://yashkhatri.netlify.app/> to know more about my projects on web-development.

Bit-Predict

- A model to forecast the price of bitcoin. Pre-processed the data with Sliding Window approach to sort the data with HORIZON and WINDOW size.
- Used multiple sorts of model such as simple sequential Dense model, Conv1D model and LSTM model
- Applied the N-Beats model from the paper using stack layer and residual connections.
- Created Ensemble model with various loss function.
- Made future predictions and checked as to how forecasting doesn't always work on open platforms.
- Concluded as to how a very small change value in the dataset can cause a huge difference in the error.

Skim-Lit

- Preparing the model to skim a long text from the PubMed-RCT articles to make it visually easier to read.
- Pre-processing the data to get the lines and features in the desired format.
- Text and Character Vectorization and Embeddings.
- Used Feature Engineering to get extra data (line number / total lines) from the data for extra features.
- Made a prefetched dataset for faster processing and included batch size for the same.
- Used Functional API and combined multiple model's inputs and outputs to get the result.

Handwritten Digit (MNIST)

- Used the MNIST dataset of handwritten numbers to make a Neural Network.
- Used HTML, JavaScript, and CSS to make a small website to test the predictions of the dataset.
- Applied tensorflow.js into the html to use the TensorFlow model created in Jupyter Notebook.
- A Mathematical site where the user would enter a digit between 0-9 on the canvas, using their entry on the canvas we pre-process the data using OpenCV tools.
- After pre-processing we apply logic on the output and compare it with our TensorFlow model. If correct there is a change of display background as an indication.

Technical Skills and Certifications

- Programming Languages: Python, HTML, CSS, Bootstrap, JavaScript
- Engineering Software : Fusion 360, SolidWorks, Ansys, MatLab
- Other Software : Microsoft Word, PowerPoint, Excel, Premier Pro, After Effects
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- Complete 2022 Data Science & Machine Learning Bootcamp – Udemy
- Complete Web Developer in 2022: Zero to Mastery – Udemy
- Complete Python Developer in 2022: Zero to Mastery – Udemy
- TensorFlow Developer Certificate in 2022: Zero to Mastery – Udemy

Positions of Responsibility

- **Event Manager, Task-Force – NITT** February 2021 – Present
 - Provided help to the candidates of the student council election.
 - Ideated various initiatives to provide a better lifestyle for the students on campus
 - Created a video for the club.
- **Executive Member, Competitions Team, HOPE** February 2021 – June 2021
 - An NGO that works towards the betterment of the environment
 - Hosted an online competition related to sustainable development.
 - It involves establishing all the criteria such as rules, judges, and rewards.
- **College Ambassador, Cuvette Tech** February 2021 – April 2021
 - A platform to connect students and software companies.
 - To execute marketing events, contests, workshops, tech talks, and quizzes.
 - Involved strategic collaboration with the clubs, societies, and fests happening on campus.
 - Carried out an online event for college students.
- **Coordinator, Events Team, Pragyan – NITT** October 2020 – June 2021
 - Finding various ideas for technical events and coming up with all the necessary criteria
 - Successfully hosting the events online such in Phronesis and Bytehoc.
- **Organising Committee, Aaveg – NITT** October 2019 – March 2020
 - Prepared the pre-show for the event.
 - Took part in the ideation and conducted various events.
 - Worked on the ambiance for the main event.

Extracurricular Activities

Social Activities:

- A volunteer under the symposium of the Mechanical department. Visited various colleges in Coimbatore to publicize our symposium. Provided detailed explanation to the Dean of the college and gave a brief explanation to the students at the college about Synergy.

Sport Activities:

- Part of the Basketball Team on NIT – Tiruchirappalli.
- Took part in the Inter NIT basketball competition
- Captain of the Inter hostel Basketball team and placed 2nd in the Basketball competition.
- Placed 3rd in Sports fete Basketball competition.

Cultural Activities:

- Secured Second place in Choreonite in Aaveg'20 – the inter-hostel cultural fest organised by NIT Trichy.