Shashank S Asthana

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EDUCATION

Indian Institute of Technology, Jodhpur

Bachelor of Technology in Computer Science Engineering

Dec. 2021 – May 2025 (Exp)

Current CGPA(Till 5th Semester): 8.1

DLF Public School, Ghaziabad, UP

P-C-M with Computer Science

Mar 2015 – May 2020

Percentage: 96.0

Relevant Coursework: Deep learning, Pattern Recognition and Machine Learning, Database Management Systems, Operating Systems, Computer Architecture, Software Engineering, Data Structures and Algorithms, Probability, Statistics, and Stochastic Processes, Mathematics for Computing.

EXPERIENCE

Undergraduate Research Internship

• During my research internship at IIT (BHU), under the esteemed guidance of Dr. Rajeev Srivastava, I focused on studying and implementing a **Deep Learning-based architecture for Single Object Tracking in Satellite Videos**. The project revolved around implementation of **Transformer tracking and Correlation**, while achieving a **MSE value of 0.19** in the testing results.

PROJECTS

Covid-19 Face Mask Detection with live Video Surveillance

June 2023—July 2023

 $Deep\ Learning, Computer\ Vision, Tensorflow, Keras$

GitHub link

As an independent project, I leveraged OpenCV, TensorFlow, and the Keras API to develop a robust image classification system capable of distinguishing between images with masks and without masks. Moreover, the solution included real-time video surveillance for mask detection with a **accuracy of more than 98 percentage**.

Computational Drug Discovery for Alzheimer's Disease

June 2023 – July 2023

Machine Learning, Data Science, Streamlit

GitHub link

Independently developed a data science project which facilitates prediction of bioactivity against the "Acetylcholinesterase" enzyme with end-to-end machine learning pipeline and deployed a visually impressive webapp. While obtaining impressive testing results with MSE loss value of 0.30.

Stock Price Predictor

May 2023 – June 2023

Deep Learning, Forecasting, LSTM

GitHub link

As a self-driven project utilized Python along with TensorFlow/Keras to develop a Deep Learning solution employing LSTM models. The project involved training on a dataset consisting of a company's stock prices and subsequently generating predictions.

CSE Society Application

Jan 2023 – April 2023

Flutter, Dart, Firebase by Google

GitHub link

Developed for the CSE Departmental Society of IIT Jodhpur, this mobile application is accessible on both iOS and android phones, while it incorporates login as being Student, Professor and Alumni.

Wikipedia Toxic Comment Classification

March 2023 - April 2023

Machine Learning, SVM

GitHub link

Implemented model that classifies the toxic wikepedia comments into six of the toxic classes given and predicts the probability of each type of toxicity for each comment.

Position of Responsibilities

Internship Representative, Career Development Cell Overall Head, Entrepreneurship Cell, IIT Jodhpur Head, INAE-SERB Youth Conclave 2022, IIT Jodhpur Core Member, Google Developer Students Club Assistant Head TEDxIIT Jodhpur 2023 Student Guide, Student Wellbeing Committee, IIT Jodhpur July 2023 - Present July 2022 - April 2023 August 2022 - Sep 2022 June 2022 - April 2023 October 2022 - Feb 2023 August 2022 - March 2023

TECHNICAL SKILLS

Skills: Data Structures and Algorithms, Machine Learning, Deep learning, Computer Vision, Web Development, App Development, Data Science, Competitive Programming

Languages and frameworks: C, C++, Python, MySQL, HTML, CSS, Django, Dart, Verilog Libraries: Tensorflow, Pytorch, OpenCV, Pandas, NumPy, Matplotlib, Seaborn, Streamlit

Academic Achievements

- Branch Changer from Mechanical Engineering to Computer Science Engineering with Rank 10 among 34 candidates shortlisted with more than 140 applied.
- Upcoming Summer Internship at Samsung Research.
- Received Letter of Recommendation from Dr. Santanu Chaudhury (Director IIT Jodhpur) for Mitacs Globalink Research Internship.
- Awarded with Certificate of Excellence for serving as the Overall Head in the Board of Innovation and Entrepreneurship
- Achieved A grade (Rank 1) in Principles of Programming Language course under Dr. Richa Singh.
- Achieved A grade in Software Engineering course under Dr. Kshitij Gajjar
- Achieved A grade in Probability, Statistics and Stochastic Processes under Dr. Gaurav Bhatnagar
- Achieved A grade (Rank 1) in Engineering Mechanics course under Dr. Suril.V.Shah
- Achieved A grade in Linear Algebra and Calculus course under Dr. Kirankumar Hiremath
- Secured 99 percentile in JEE Mains and among top 0.1 percent students selected in JEE Advanced with more than 1 million candidates applied.
- Recieved Certificate of Merit from CBSE for being in top 0.1 percent candidates of CBSE Board Exam 2017-18.