



EDUCATION			
Program	Institution	%/CGPA	Year
B.Tech in Chemical Engineering	Indian Institute of Technology Madras	8.62	2023
XII (CBSE)	Jesus & Mary Academy, Darbhanga	92.6	2019
X (ICSE)	Madonna English School, Darbhanga	95.33	2017
SCHOLASTIC ACHIEVEMENTS			
● Secured rank in top 8 percent in ICAS, Mathematics conducted by UNSW Global , Australia			2016
● Secured rank in top 7 percent in ICAS, Science conducted by UNSW Global , Australia			2016
● Secured National Rank 65 and Zonal Rank 13 in GTSE (Goal Talent Search Examination)			2015
WORK EXPERIENCE			
Winter Internship, Alpha Alternatives Nov '21-Mar '22	<i>Worked on developing Quantitative strategies and models for trading in Python</i>		
	● Worked on developing a system to choose stocks from nifty 100, commodities and currency ● Used correlation data and bootstrapping to keep the portfolio diversified chosen by the system ● Used indicators like RSI, ATR, VPN, Stochastic Oscillator, MACD to make custom strategies ● Backtested existing strategies and worked on position sizing based on risk factor		
Mage Dec '21-Mar '22	<i>Worked on a software to provide automated backend solutions</i>		
	● Created a templatized library to monitor the services on kubernetes cluster using prometheus ● Worked on building a pipeline to make custom docker images and deploying them on kubernetes ● Reduced the struggle of writing code to create and manage backend to few clicks from frontend		
Summer Internship, BioCliq Jun '21-Jul '21	<i>Image Anomaly Detection Using Normal Data Only by Latent Space Resampling</i>		
	● Implemented a deep learning model to segment the tumorous region of a brain's MRI ● Trained a Supervised model U-NET on 3-d voxels as well as 2-d slices of 3-d images ● Trained Unsupervised model VQ-VAE and Autoregressive Generative model PixelSNAIL ● Achieved an accuracy of 98% and a dice score of 0.78 on ground truths for tumour in U-Net		
Summer Internship, WorkFence Technologies May '20-Sep '20	<i>Performance analysis of a company (comparing Work and Interaction time of Employees)</i>		
	● Developed a backend in python to generate regular performance reports for the company ● Used NumPy & pandas to clean the fetched data from API and generate graphs on several metrics ● Increased the speed of report generation by 50% while maintaining authenticity of the reports		
PROJECTS AND COMPETITIONS			
European Rover Challenge 2021 & Indian Rover Design Challenge 2020	<i>Member of Anveshak, Mars Rover building team, working the design of robotic arm</i>		
	● Designed a robotic arm with 3 DOF* on Fusion 360 and did the strain-stress analysis on the model ● Reduced the weight of the rover by 29% , thereby optimising the design using shape optimisation ● Initiated the idea of making the robot semi-automatic by implementing Inverse Kinematics ● The team ended up at the 7th rank in IRDC - 2020 and 4th rank in the ERC2021 finalists' list		
Django-billdesk & billdeskJs	<i>Packages to integrate billdesk-payment gateway to Django and node web apps</i>		
	● Enforced a Hash checking code to check for authenticity of the payment using checksum ● Implemented a code to provide ready-to-send messages and to parse the final received message ● Have proven to be productive for developers reflected through a download of 1.5k+ to date		
slide-extractor	<i>Package to extract slides from video lectures and presentations (link)</i>		
	● Created a student friendly package to extract slides and presentations from videos ● Solved a problem posed online lectures during pandemic to help students prepare for exams		
COURSEWORK & SKILLS			
Mathematical Foundation For Data Science		Financial Markets*	Introduction to Data Science*
Probability, Statistics and Stochastic Process		Principles of Economics	Linear Algebra
Tech Stack:- Go, Node, Python, Matlab, C++, Fusion 360, PyTorch, Django, Numpy/Pandas, Kubernetes, Docker			
POSITIONS OF RESPONSIBILITY			
Students' Head Web-Operations IAR Apr '21 - Apr '22	● Managed a team of 6 members to make websites for our International community of 50k+ alumni ● Analysed the functioning of the initiatives and better the same to deliver visionary excellence ● Spearheaded deliverables from the WebOps team and provided technical expertise to managers ● Catered our International community of 50k+ alumni and 11K+ students		
	● Managed a team of 5 members to make the website for the Annual ChemPlus Event ● Created a registration portal for smooth registration of events thus increasing the footfall by 60% ● Engaged more sponsors than ever before, thereby increasing the sponsorship amount by 2 lakhs		
EXTRA-CURRICULAR			
Social Initiatives	● Tutored and mentored a batch of 10 students to prepare for IIT-JEE at Ten Square Academy		
Sports	● Among 15 (out of 800+) to be selected for National Sports Organisation (NSO) Frisbee 2019-20		