

Atharva Naik

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INTERESTS	Machine Learning, Reinforcement Learning, Natural Language Processing, Computer Vision, Robotics, Path Planning and Controls	
EDUCATION	Indian Institute of Technology (IIT) Kharagpur Bachelor of Technology, BTech in Computer Science • Current CGPA: 9.67/10 (6/121 rank in department)	West Bengal, India Expected Jul 2022
PROJECTS	Unsupervised style transfer and controlled text generation Ongoing • Working on end to end system for unsupervised style transfer and multisentence compression Tracking Islamophobia in the Wake of COVID-19 Ongoing • Building a model to detect hate speech against Indian muslims in multilingual (Hindi and English) tweets after Tablighi Jamaat pilgrims were linked to COVID-19 spread in India. Emotion Detection from COVID-19 Tweets Submission under review • Building an improved version of adversarial attention networks (AAN) for fine grained emotion regression to detect affective parameters like valence, arousal and dominance from text. We plan to use this model to analyze fear evolution in corona-virus related tweets Aspect Extraction for Tourist Review Summarization (Course Project) • Used a neural Attention-Based Aspect Extraction (ABAE) model to perform unsupervised extraction of aspects from tourist reviews, which were used to build an opinion summarizer over reviews. Organ Donation Matcher (Course Project) • Built a website using Django to match organ donors with recipients and create fundraisers, as part of the software engineering course. The website offers features such as blogging, experience sharing, and text chat. Mahindra E2O • Built a CARLA simulator based gym-compliant training environment for testing Reinforcement Learning algorithms. • Worked on a jerk-optimal frenet-frame based planner frenet-frame based planner Eklavya-7.0 • Worked on Localization and Planning on EKLAVYA-7, the bot that achieved runner up performance in IGVC 2019 . All work was done using the ROS kinetic framework. Image Processing Workshop • Attended week long Winter Workshop on basic image processing. Worked on geometric determination of turning angle needed, from an image data and controlling velocity of bot on basis of proximity from a fixed target. Path Planning Workshop • Implemented a vanilla Kalman Filter • Implemented the A* algorithm for a 2D bot, with non zero size, for a grid based obstacle course.	
TECHNICAL SKILLS	• Programming Languages: Python, C, C++, Icarus Verilog • Libraries and Tools: PyTorch, Tensorflow, sklearn, numpy, OpenCV, ROS, Django, GitHub	
ACADEMIC HONORS & AWARDS	• 2nd place in Intelligent Ground Vehicle Challenge 2019 held at University of Oakland, in the AutoNav subcategory as a student member of Autonomous Ground Vehicle (AGV) Research Group. Jul 2019 • Secured KVPY fellowship , with All India Rank of 543 (General Category). Apr 2018 • Was ranked overall first in mathematics department, (original major was Mathematics and Computing) and in top 1%, among first year undergraduate students (~11/1400) Jul 2019	
RELEVANT COURSES	Natural Language Processing, Machine Learning*, Stochastic Processes in Finance*, Probability and Statistics, Algorithms-1, Algorithms-2*, Programming and Data Structures, Software Engineering, Discrete Structures, Computer Organisation and Architecture*, Compilers*, Formal Languages and Automata Theory, Switching Circuits, Mathematics-1, Mathematics-2 The ‘*’ indicates that the concerned project is ongoing	

**CO-CURRICULAR
ACTIVITIES**

- Interested in poetry and writing
- Studied Goju Ryu style karate for 5 years, receiving a 'golden brown' belt (second highest in the belt system)
- Former member of campus filmmaking group, Technology Filmmaking and Photography Society (TFPS). Was involved in screenwriting and shooting of '[Carpe Diem](#)', as part of Fresher's Productions.