

# Atharva Naik

• atharvanaik2018@gmail.com • [website](#) • +91 8207289999

INTERESTS	Deep Learning, Natural Language Processing, specifically Neural Dialogue Models, Summarization, Sentiment Analysis, and Hate Speech Detection,	
EDUCATION	<b>Indian Institute of Technology (IIT) Kharagpur</b> Bachelor of Technology, <b>BTech</b> in Computer Science • Current CGPA: 9.67/10 (Department rank: 6/121)	West Bengal, India Expected Jul 2022
PROJECTS	<b>Tracking Islamophobia in the Wake of COVID-19</b>	<b>Ongoing</b>
	• <b>Aim:</b> Detect and monitor hate speech against Indian Muslims on Twitter after <a href="#">Tablighi Jamaat</a> pilgrims were linked to COVID-19 spread in India.	
	• Tackling the problem of detecting hate speech targeting specific religions from Hindi-English code-mixed tweets.	
	• Examining few shot learning techniques to adapt general code-mixed hate speech detection models to our task of identifying hate speech focused on specific targets.	
	<b>Unsupervised style transfer and controlled text generation</b>	<b>Ongoing</b>
	• Developing an end to end neural model for unsupervised style transfer and multi-sentence compression, to generate news headlines from tweets.	
	<b>Emotion Detection from COVID-19 Tweets</b>	<b>May 2020 - Aug 2020</b>
	• Designed and implemented a transformer-based model, and an improved version of adversarial attention networks (AAN) for emotion regression.	
	• Compared our model with LSTM and CNN baselines for fine grained emotion classification and observed performance comparable to SOTA on the AIT task from SemEval 2018 as well as COVID-specific data	
	• Visualized trends in topics specific to a given emotion, using aspect extraction techniques to create topic representations.	
PUBLICATIONS	• <a href="#">Publication</a> under review at ACM CODS-COMAD.	
	<b>Aspect Extraction for Tourist Review Summarization</b>	<b>March 2020 - April 2020</b>
	• Explored unsupervised extraction of aspects from tourist reviews using a neural Attention-Based Aspect Extraction (ABAE) model. Aspects were then used to build an opinion summarization system over reviews.	
	<b>Organ Donation Matcher</b>	<b>March 2020 - May 2020</b>
	• Built a <a href="#">website</a> using Django and PostgreSQL, to match organ donors with recipients, create fundraisers, blog, comment and chat with users, for my software engineering course project	
	<b>Mahindra E2O</b>	<b>Nov 2019 - Dec 2019</b>
	• Python script for training Reinforcement Learning Agents in the CARLA simulator, with camera feed and PointCloud LIDAR data.	
	• Worked on a jerk-optimal frenet-frame based planner <a href="#">frenet-frame based planner</a>	
	<b>Eklavya-7.0</b>	<b>May 2019 - Jun 2019</b>
	• Worked on Localization and Planning on EKLAVYA-7, the bot that achieved <b>runner up performance in IGVC 2019</b> . All work was done using the ROS kinetic framework.	
TECHNICAL SKILLS	<b>Image Processing and Path Planning Workshop</b>	<b>Dec 2018</b>
	• Week long IEEE certified workshop on image processing, that covered basic theory as well as programming in C++ with OpenCV	
	• Implemented the A* algorithm for a 2D rectangular bot in an obstacle grid, with the stl library of C++	
	• Implemented a vanilla Kalman Filter in python	
	• Mukherjee, Rajdeep, Sriyash Poddar*, <b>Atharva Naik*</b> , and Soham Dasgupta. "How Have We Reacted To The COVID-19 Pandemic? Analyzing Changing Indian Emotions Through The Lens of Twitter." <a href="#">[pdf]</a> (under review)	
	* indicates equal contribution	
	• <b>Programming Languages:</b> Python, C, C++, Icarus Verilog	
	• <b>Libraries and Tools:</b> PyTorch, Tensorflow, sklearn, numpy, OpenCV, ROS, Django, GitHub	

**ACADEMIC  
HONORS  
& AWARDS**

- Won **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
- Ranked 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

**\* indicates ongoing courses**

**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.