

## EDUCATIONAL QUALIFICATIONS

Course/Examination	Institution/University	Year of Passing	Performance
B.Sc (Honours) Computer Science	University of Delhi	2020	8.024 CGPA
Class 12 <sup>th</sup> (CBSE)	Modern School Vasant Vihar, Delhi	2017	92%
Class 10 <sup>th</sup> (CBSE)	Modern School Vasant Vihar, Delhi	2015	9.6 CGPA

## WORK EXPERIENCE

### UVRobots – Mobile Robotics Engineer [August 2020 – Present]

- Developed a flask app to stream video from raspberry pi cameras in 360° & processed the video using OpenCV to generate depth maps
- Building a react native application which interacts with ROS melodic nodes and turtle bot to control navigation of the robot

### Omdena – Machine Learning Engineer Intern [March – June 2020]

- Performed LDA topic modelling, time series analysis, correlation & exploratory data analysis on the COVID-19 policies by the governments to understand the impact of the policies during a pandemic over the vulnerable groups. Results to be published at UN AI for Good Summit

### HushTech Solutions – Co-Founder [June 2019 – Present]

- Self-taught conversational technology developer, developing omni-channel messenger chatbots powered by Natural Language Processing to help businesses automate their customer interactions, marketing and lead generation ([hushtechsolutions.com](http://hushtechsolutions.com))

### Impute Inc. – Mobile Application Development Intern [March – June 2019]

- Developed & extensively trained a Hybrid Chatbot with contextual conversation for Fluent8 app using Node.js & Dialogflow AI
- Deployed webhooks on Firebase Cloud Function, directed fallback user queries to external APIs to enhance the conversational experience

### Inverted Sense - Chatbot Development Intern [December 2018 – March 2019]

- Built messenger chatbots for real businesses using Twilio, Chatfuel, Janis.ai. Worked on designing, building, training & testing bots
- Proposed and successfully developed an in-built shopping cart & up-selling feature which led to higher lead conversions & ROAS

## RESEARCH EXPERIENCE

### Department of Computer Science, University of Delhi – Student Researcher [March – May 2020]

- Built a web voice application powered by conversational AI to collect semester feedback from students. Embedded voice interaction using WebSpeech API interfaces, web socket, API.AI & created webhook using Node.js. Performed benchmarking, load, soak and sink testing

### Artificial Intelligence Research Lab, University of Delhi – Student Researcher [June – September 2019]

- Self-initiated research work under Dr. Amita Kapoor wherein I built an Assistive System for Autonomous Vehicles based on Deep Learning & Computer Vision. Compiled Darknet with OpenCV for real-time predictions. Implemented a bash script to automate bulk testing & mAP

## PROJECTS | Github : [github.com/hunarbatra](https://github.com/hunarbatra)

- HunAI** [Python, GPT 2] - DialoGPT DSTC model based Telegram chatbot buddy, trained on Reddit discussions
- CoRelief** [React.js, Kendo UI, API.AI] - NLP based web chatbot to help fight COVID-19 related anxieties & support mental health
- Webvoice Bot** [Node.js, API.AI, WebSpeech API, Socket.io] - A natural language web voice (STT & TTS) application for feedback collection
- Real Time Voice Cloning** [Python, Synthesizer, TensorFlow] - Transfer Learning based voice cloning on the recorded input to create TTS
- Songify** [Python, GPT 2] - A GPT-2 based song lyrics generator based on a transformer natural language processing model
- Apka Chikitsak** [Node.js, SSML, GCP] - Multilingual voice application to provide telehealth, healthcare literacy & information to people
- Vehicle and Lane Detection** [Python, SciKit] - 99.07% accuracy for detecting vehicles, lanes using HOG & SVM on HSV colour space
- Rekognition** [Java, XML, ML Kit] - Native Android app for Text Recognition, Object Recognition & Facial Features Recognition
- All India Emergency Helpline** [Node.js, SSML, GCP] - Hybrid NLP bot to provide emergency helpline info. 5K+/m users on Google Assistant

## AWARDS & ACHIEVEMENTS

- Student of the Year**, Department of Computer Science, University of Delhi, 2020
- First Indian** to receive The Mars Generation **24 under 24** Award in Leaders & Innovators in STEAM category, 2019
- National Finalist, Smart India Hackathon** Software Edition, (out of 5,000 teams) in India's largest hackathon by MHRD Govt. of India, 2019
- University Topper** in Data Structures, Android Programming, Software Engineering, System Programming & PHP Programming subjects
- National Winner**, Summer with Google (out of 20,000 participants), 2018
- World Rank 1642**, Google CodeJam 2020
- Winner**, Smart City Challenge, IIT Delhi, 2018
- Ideation Paper Presentation** on 'Ingestible Robots' at 15<sup>th</sup> WONCA World Rural Health Conference, 2018

## SKILLS

- C++, C, Python, Javascript, Java, HTML, CSS, PHP, SQL, Application Development (Native, React Native)
- Tools & Frameworks: Node.js, React.js, TensorFlow, Flask, OpenCV, Dialogflow, git, bash, Firebase, GCP, ROS

## POSITIONS OF RESPONSIBILITY

### Lead – Google Developers, Developer Student Clubs (One of the few students selected globally by Google) [January 2019 - July 2020]

- Conducted 10+ workshops, trained 300+ students, delivered talks on Cloud, Machine Learning, Web and Mobile Application Development
- Facilitated GCP Crash Course, Explore ML & hackathons to foster a strong technical developer community. Supervised & led live projects

### Mentor – Google Code-in at TensorFlow [December 2019 - January 2020]

- Mentored students to get started with open source developments for TensorFlow. Developed problem statements on BERT model, beginner friendly resources, reviewed submissions, provided constructive feedback & guidance

## RESEARCH PUBLICATIONS

Medbot: Conversational Artificial Intelligence powered Chatbot for delivering Telehealth after COVID-19, **IEEE 5th International Conference on Communications and Electronic Systems** (ICCES 2020); Urmil Bharti, Deepali Bajaj, **Hunar Batra** et al., IEEE Xplore [Link](#)