

YASH PARAG BUTALA

Third year undergraduate
Computer Science and Engineering
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ACADEMIC DETAILS:

Degree/Certificate	Institute	Board	Year of Completion	Grade
BTech + MTech	IIT Kharagpur		2017 - 2022	9.03/10
XII (HSC)	SP College, Pune	Maharashtra Board	2017	89.5/100
X(SSC)	SPM School Pune	Maharashtra Board	2015	96.2/100

TECHNICAL SKILLS:

Languages / Frameworks: C, C++, Python, Java, MySQL, JavaScript

Platforms/ Tools: Linux, OpenCV, Git, Robot Operating System (ROS), Keras, TensorFlow

PROJECTS AND WORK EXPERIENCE:

- **Kraken 3.0:** (Autonomous Underwater Vehicles Research Group, IIT Kharagpur)
(Guide: Prof Cheruvu Siva Kumar, April'18-present)
 - Software team member of the research group that developed autonomous under-water vehicle, Kraken 3.0.
 - Implemented object detection using Gaussian Mixture Model and worked on implementing You Only Look Once (YOLO) as an alternative technique for object detection using deep learning.
 - Implemented software stack as FSM (finite state machine) using SMach Python library and server-client system using ROS.
- **Internship Management Portal:** (Software Engineering Term Project)
(Guide: Prof Sudip Misra, Jan'19-April'19)
 - Created summer internship portal for the department of Computer Science and Engineering, IIT Kharagpur
 - It has features like login, signup, document upload, shortlist students according to pre-requisites. Data base managed in MySQL.
- **Cognitive Studies using an Automated Conversational Agent:** (Science of Happiness Project)
(Guide: Prof Manas Kumar Mandal, Jan'19-April'19)
 - Created a chat-bot that detects state of mind (happiness level) while chatting with the subject as an Android application.
 - Used two Recurrent Neural Network model – encoder and decoder to determine the state of happiness of the subject.
- **Sequicity:** (Recurrent Neural Networks)
(Guide: Prof Pawan Goyal, Dec'18-Feb'19)
 - Analysed paper NUS-Sequicity which proposes a novel method for creating a dialogue response system. Trained and tested on various datasets like GloVe

ONLINE COURSES:

- Artificial Intelligence for Robotics by Georgia Tech
- Deep Learning Specialization by deeplearning.ai on Coursera
- Machine Learning by Andrew Ng on Coursera

RELEVANT COURSEWORK:

(* = current, T = theory, L = Lab)

- Programming and Data Structures(T/L) • Algorithms-1(T/L) • Discrete Structures • Knowledge Modelling and Semantic Systems*
- Software Engineering(T/L) • Formal Language and Automata Theory • Switching Circuits and Logic Design(T/L)
- Computer Organization and Architecture*(T/L) • Compilers*(T/L) • Machine Learning* • Algorithms-2*

SCHOLASTIC ACHIEVEMENTS:

- **IIT JEE Advanced All India Rank -360:** In top 0.018 % amongst more than 200,000 students who cleared first stage-IIT JEE Mains.
- **KVPY 2016-17 scholar All India Rank - 518:** Examination held by Department of Science and Technology, the Government of India.
- **State Scholarship Examination 2012 - 2nd place:** In the prestigious examination which had participation of 0.7 million+ students

EXTRA-CURRICULAR ACHIEVEMENTS:

- **Second place in OpenSoft, General Championship IIT Kharagpur 2019:** Part of team that created website to facilitate querying of criminal court cases using Natural Language Processing technique.
- **Best Fresher Award, Poles-Apart, Kshitij 2018:** Robotics Event held during Kshitij, the Asia's Largest Techno-Management Fest.
- **Second Position in Biz-Quiz, Kshitij 2018:** Second position in the business quiz that sees participation of eminent teams from various colleges across India.
- **Silver Medal, Dr. Homi Bhabha Young Scientist Exam - Project on Environmental Impact Assessment of Anthropological Activities - "Consumerism."**

POSITIONS OF RESPONSIBILITY:

- **Head of Software Team, AUV IIT Kharagpur:** Will be serving as head of the research group for the academic year 2019-20.
- **Mentor, IEEE Certified Workshop on Image Processing:** Taught students of IIT Kharagpur various IP and Computer Vision algorithms and their implementation in OpenCV during Winter Workshop held in December 2018.
- **National Service Scheme:** Member of a national organization that strives for development of rural areas. Attended the week long NSS camp in December, 2017.