

Prakhar Agarwal

SECOND YEAR UNDERGRADUATE · COMPUTER SCIENCE AND ENGINEERING

INDIAN INSTITUTE OF TECHNOLOGY KANPUR

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EDUCATION	Indian Institute of Technology Kanpur , UP, India	
	▪ Bachelor of Technology, Computer Science and Engineering	2015 – 2019 [Expected]
	• Cumulative Grade Point/CGPA : 9.5 / 10.0	
	Central Public School , Rajasthan, India	
	▪ 12th Grade	2015
	• RBSE: 89.8%	
	Kendriya Vidyalaya Jhalawar , Rajasthan, India	
	▪ 10th Grade	2013
	• CBSE CGPA: 10.0/10.0	
ACADEMIC ACHIEVEMENTS	▪ All India Rank - 126 , JEE-ADVANCE	2015
	▪ 0.1 Percentile, JEE-MAINS	2015
	▪ KVPY Fellow, All India Rank - 232	2013
	▪ 1 Percentile, Physics (NSEP) Olympiad	2014
	▪ Qualified Chemistry (NSEC) Olympiad	2014
PROJECTS	Autonomous Underwater Vehicle (AUV) github.com/AUV-IITK	Dec 2015 – Present
	▪ Software Developer, Prof. K.S. Venkatesh & Prof. Sachin Shinde	
	• Member Software Subsystem of team AUV-IITK.	
	• Were placed 2nd at the national level competition SAVe, organized by NIOT Chennai.	
	• Bot can perform task like path following, object detection, dropping objects and shooting torpedoes underwater.	
	• Used Robot Operating System (ROS) for Motion Control, OpenCV for Image Processing and Gazebo for simulation.	
	Introduction to Game Theory	Jan 2016 – Apr 2016
	▪ ACA Semester Project	
	• Developed an AI for Tic-Tac-Toe and Connect-4 games.	
	• Used min-max algorithms with alpha-beta optimization and heuristic functions.	
	• Used ZeroMQ library to connect two AI's to play against each other.	
	Ethical Hacking	May 2016 – Jul 2016
	▪ Summer Project Programming Club, IITK	
	• Used x86 Assembly Language.	
	• Performed attacks like Buffer Overflow, Reverse Engineering, SQL-Injection, Man In The Middle.	
	• Participated in various CTFs.	
RELEVANT COURSES	Completed	
	Introduction to Programming	Partial Differential Equation
	Introduction to Electrodynamics	Multivariable Calculus
	Introduction to Classical Mechanics	Discrete Mathematics
	Introduction to Electronics	Logic in Computer Science
	Ongoing	
	Data Structures and Algorithms	Probability and Statistics
	Computer System Security	Computer Laboratory
		Linear Algebra
		Abstract Algebra
SKILLS	PROGRAMMING	C/C++, Python, x86 Assembly, ROS, OpenCV.
	WEB	Javascript, CSS, HTML.
	UTILITIES	Linux Shell Utilities, Git, GDB, \LaTeX , Sublime, Vim.
	PLATFORMS	Linux(Ubuntu), Windows, Arduino, Android.

CAMPUS ACTIVITIES	Academic Mentor	Aug 2016 – Present
	<ul style="list-style-type: none"> ▪ Fundamentals of Computing, Counselling Service IITK <ul style="list-style-type: none"> • Helped students to cope up with Academics. • Took Institute level doubt sessions for ESC101 course. 	
	Departmental Student Body Member	Aug 2016 – Present
	<ul style="list-style-type: none"> ▪ Computer Science and Engineering, IITK <ul style="list-style-type: none"> • Arranged Happy hours and departmental trips. 	
	Project Mentor	Jan 2017 – Present
OTHERS	<ul style="list-style-type: none"> ▪ Association for Computing Activities (ACA), IITK <ul style="list-style-type: none"> • Mentoring the project Introduction to Game theory. 	
	Company Coordinator	Jul 2016 – Dec 2016
	<ul style="list-style-type: none"> ▪ Student Placement Office, IITK <ul style="list-style-type: none"> • Conducted various placement activities. 	
	Presentation Project Diophantine Equations (Under Prof. Nitin Saxena)	
	Google Devfest Time Table Scheduler App	
	Robotrix Made a bot that can pass wedges, lift and stack cubical objects.	
	Mathemania 3 rd position on Institute level.	
	Project Euler Solved 50+ problems.	