

ADITYA GUPTA

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ACADEMIC DETAILS

Year	Degree/Exam	Institute	CGPA/%
2015-Present	B.Tech in Computer Science & Engineering	IIT Ropar	CGPA – 8.44
2015	Class XII–CBSE	Step by Step High School, Jaipur	96%
2013	Class X–CBSE	Central Academt, Jaipur	CGPA – 9.8

TECHNICAL SKILLS

Computer Skills: Languages: (Java, C++, C), **Scientific** (MATLAB, Maxima) **Web:** (HTML, CSS, JavaScript, PHP) **Database:** (mySQL) **Script:** (Shell, Python, Perl) **Tools:** (Eclipse IDE, L^AT_EX, Android SDK Platform Tools, Adobe Photoshop, Adobe Premiere Pro, Adobe After Effects) **Others:** (OpenGL/WebGL, AndEngine)

Courses: Computer Science: (Discrete Mathematics, Data Structures and Algorithms, Computer Architecture, Artificial Intelligence, Programming Paradigms and Pragmatics, Software Systems Lab), **Electrical:** (Digital Electronics), **Mathematics:** (Linear Algebra, Real Analysis, Complex Analysis, Elementary Number Theory)

PROJECTS

- **Assembly language Functional and Pipeline simulator** (Guide: Dr. Neeraj Goel , Sep'16 - Nov'16)
 - C/C++ Program which simulates the working of a hypothetical RISC architecture called "SimpleRISC" taking input in form of '.mem' files containing instructions in hexadecimal format and then processing them in serial or pipelined manner (with total 5 pipeline stages).
- **Specific Knock Pattern detecting Door Lock** (Guide: Dr. Prabir Sarkar , Sep'15 - Oct'15)
 - Used Arduino micro-controller, electronic door lock and Piezo-sensor, user needs to knock in some specific rhythm, perhaps tunes of some of his favourite rhythm, that makes the door recognize it and open automatically.
- **Simulation of Conway's Game of Life using Arduino** (Guide: Dr. Rohit Sharma , Sep'16 - Nov'16)
 - Simulated Conway's game of Life (a cellular automaton) using Arduino and creating a grid of 5x5, 25 LEDs, where user can input an initial pattern and see how it grows out.
- **FlatCraft: A 2D version of popular game "Minecraft" for Android.** (Guide: Dr. Neeraj Goel and Dr. Mukesh Saini , Jan'17 - Ongoing)
 - An android game which which is a simplifie version of Minecraft that allows player to explore their creativity and build various structures and objects with differetn textured tiles.
- **2x2x2 Rubik's Cube (Pocket Cube) Solver and Visualizer.** (Self Interest, Dec'16)
 - A fully functional and interactible pocket cube drawn using WebGL, which also aallows user to input a given state and then solves it.

ACHIEVEMENTS/EXTRA CURRICULAR ACTIVITIES

- Secured 98.75 percentile in JEE Advanced, Merit List Rank: 1890.
- NTSE Fellow (AIR 381, 2010), KVPY Fellow (AIR 526, 2013). Achieved AIR 381 in NSTSE 2010, qualified for round 2 in NSEC, 14-15 (among top ~300 students) and among the top 1% students in NSEP, 14-15.

PAST EXPERIENCES

- **Research Intern** (Guide: Dr. Partha Sarathi Dutta, May'16 – July'16)
 - Studied Early Warning Signals in case of Critical Transitions in Real and Simulated Bistable Dynamical Systems, Multifractal Deterended Fluctuation Analysis (MFDFA) and used it in prediction of such transitions.