



Udayraj Deshmukh

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EDUCATION

Year	Degree/Certificate	Institute/Board	CGPA/Percentage
2015 - 2019	B.Tech	Indian Institute of Technology, Guwahati	8.74 (Current)
2015	Senior secondary	CBSE board	94.3%
2013	Secondary	Maharashtra State Board	89.4%

PROJECTS & EXPERIENCES

- Lead Developer, Technothlon, IIT Guwahati** Sep 2016 - Present
Created a complete web based solution that provides the following: <http://technothlon.techniche.org>
 - For Organizers : An Interface to upload & manage registrations, schools & centers.
 - For Students : Monthly online quizzes, download auto-generated certificates, a payment portal for online registrations for the exam.
 - For Admins : View & manage any registrations, manage website parameters, etc.Web technologies used : Laravel, jQuery, MySQL.
- Automation for No Dues Forms** Nov 2016
A Web App for automating the No Dues Clearance <http://github.com/Udayraj123/no-dues>
process.
It involved an hierarchy of roles so that the form applications are filtered according to level of the role.
- Fluxo-de-Energia** Sep 2016 - Present
Technothlon Online event <http://github.com/Udayraj123/fluxo-de-energia>
A Visually attractive web-based game for children inspired from VSM (Virtual Stock Market).
It enables students to experience how stock market functions in a fun way.
- Rubik's Cube Solver Robot** Mar 2017
Robotics Club, IIT Guwahati. <http://instructables.com/id/Rubics-Cube-Solver-Bot>
Using Image processing (openCV), Arduino, Servo motors, Acrylic and simple parts to make a robot that solves Rubik's cube.
- Exploring Applications of Deep Learning in Protein Genomics** Summer 2017
Prof. Rajat Kumar De, HOD at MIU, ISI Kolkata.
Starting with implementing basic ML models from scratch - Linear & Logistic regression and MLPs, we finally implemented two RNN-based models -
 - Achieved an **F1 score of 0.85 using LSTMs** in Protein Family Classification on the uniprot database.
 - Reached an accuracy of ~67.8% in Protein Secondary Structure Predication with a **computationally much less expensive** model than the state of the art model which is at 71%.

TECHNICAL SKILLS

- Programming languages** : C, C++, Python, VHDL
 - Web technologies** : PHP, Laravel, HTML, Bootstrap/CSS, Javascript, JQuery, MySQL
 - Miscellaneous** : Git, openCV, tensorflow, LMMS, Bash Scripting, Octave*, LaTeX*, Android programming *
- * *Elementary proficiency*

POSITIONS OF RESPONSIBILITY

- Chief Organizer and Online Head, Technothlon 2017**
Leading a team of about 300 organizers for the successful conduction and publicity of

Technothon, the international school championship in more than 350 cities across the nation.

- **Core Team Member**, Technothon 2016
Prepared theme & questions for the Technothon paper and planned events for its second level i.e. Mains at IIT Guwahati.
- **City representative**, Sangamner (Maharashtra), Technothon 2016
Conducted the exam single handedly in my city with a participation of over 200 students.
- **Hostel Coordinator** (Kapili Hostel), Saathi Counselling Service, IIT Guwahati
Conducted mentor-mentee interaction sessions to bridge the communication gap between freshers and seniors in the college.

ACHIEVEMENTS

- **JEE Advanced 2015** : Secured **AIR 800** among 0.15 million candidates appearing for the Exam.
- Was among the top 10 of all students (650+) at IIT Guwahati in the freshman year.
- Obtained **AS Grade** in the course "Introduction to Design DD210M" in 2016.
- **CodeChef - SnackDown 2017**: Secured rank 615 in the Pre-Elimination Round among 21,038 teams from 116 countries.
- State Rank 1 & AIR 9 in SOF's International Maths Olympiad 2012 (class 9th)

KEY COURSES TAKEN

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|---|---|
| • Data Structures Lab & Theory CS 201/CS210 | • Algorithms CS 204 |
| • Discrete Mathematics CS 202 | • Formal Languages and Automata Theory |
| • Linear Algebra MA101 | • Software Engineering Lab & Theory |
| • Digital Design CS 221 | • Probability Theory and Random Processes * |
| • Operating System Lab & Theory* | • Theory of Computation * |

** To be completed in Nov 2017*

EXTRACURRICULARS

- **Hobbies**: Stunts, Electronic Music, Photography, Table Tennis, Sketching, Charcoal Painting
- Participated in the **5th Inter-IIT tech meet** held at IIT Kanpur in March, 2017
- **Manthan 2017** : Bagged **2nd position** in Inter-Hostel Charcoal Painting competition.
- **Kriti 2016** : Participated in the event of '**Pitch It**', a startup ideation competition in the Inter-Hostel Technical Competition.
- **Manthan 2016** : Participated in '**Footloose**', the Inter-Hostel Dance Competition