

Rohit Naik Jarupla

Junior Undergrad, Computer Science,
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Education

Indian Institute of Technology Delhi

Bachelor of Technology

New Delhi, India

2014 - 2018

Relevant Courses: Artificial Intelligence, Machine Learning, Operating Systems, Analysis & Design of Algorithms, Database Management Systems, Computer Networks, Parallel Programming

Hyderabad Public School, Begumpet

ICSE Boards

Hyderabad, India

2002 - 2012

CGPA: 9.47

Work Experience

- **Web Developer Intern** NextGen, Bangalore
Dashboard Development in JavaScript *Summer 2016*
 - Designed, developed and delivered a large number of customized web based dashboards (linked to the companys proprietary product named p3 platform) which enabled client companies to monitor their CSR projects. Technology used: HTML5, CSS3, JavaScript, jQuery, Bootstrap, C3.js.
 - Created a library to match the data model of p3 platform with the level of customization required for the web based dashboards. Integrated several libraries to provide for higher level data aggregation and transformation. Technology used: JavaScript, AJAX, JinqJs, Lodash, Loopback powered REST APIs.

Projects

- **Operating System - xv6** IIT Delhi
course project under Prof. Sourav Bansal *Jan 2017 - Present*
 - This is an ongoing project, in which I build a basic Operating System from scratch. So far, I've implemented basic I/O, co-routines, threads & non-preemptive & preemptive scheduling.
 - Written in C and assembly language, x86.
- **Facial Attractiveness Classifier** IIT Delhi
course project under Prof. Parag Singla *Feb 2017 - March 2017*
 - Used Support Vector Machines (SVMs) to build a facial attractiveness classifier, using both Linear Model as well as Guassian. Solved the SVM optimization Problem using a general Purpose convex optimization packages, CVXPY and LIBSVM
- **Game Player for TAK** IIT Delhi
course project under Prof. Mausam *July 2016 - Sep 2016*
 - Designed a bot for the Real Time Strategy Game, TAK, using Adversarial Search.

- Implemented Depth-Limited MiniMax Tree Search, Alpha-Beta Pruning and Transposition Table. Used Genetic Algorithm to drastically improve the evaluation function.

• Elevator Simulation Model

IIT Delhi

course project under Prof. Mausam

Aug 2016 - Nov 2016

- Designed an Elevator Simulator to optimize electricity and total waiting time.
- Modeled the problem as Markov Decision Process and implemented UCT and function approximation, along with memory optimization due to a huge state space.

• Multiplayer Ping-Pong

IIT Delhi

course project under Prof. Vinay Ribeiro

March 2016 - May 2016

- Wrote server and client programs for a multilayer ping pong game played over the network using Swing Java Library for GUI and Socket Class for networking (UDP Protocol).
- Supports up-to 4 players simultaneously and disconnected/crashed player are replaced by bots to ensure continuity of the game.

• ARM Processor in VHDL

IIT Delhi

course project under Prof. Anshul Kumar

Feb 2016 - May 2016

- Implemented an ARM Processor with RAM, Register File and an ALU, involving Pipe-lined data-path and control-path with data-forwarding and a co-processor for branch prediction

Independent Projects

• Web Scraper in Python

Python Programming

July 2016 - Aug 2016

- Built a Web Scraping Script in Python using the Modules BeautifulSoup and Selenium that scans a given course page and automatically downloads the Lecture Notes and Tutorials and saves them locally in appropriate format.

• Handwritten Digits Recognition Software

Machine Learning

October 2016

- Designed a Neural-Network to decipher images of handwritten digits in MATLAB. Implemented the Back-propagation Algorithm to minimize the Cost Function.

Awards, Grants & Honours

KVPY National Scholarship
*Secured All India Rank 5**

2012

National Science Olympiad 2012
Secured Rank 69

JULY 2012

Silver Medal for Academic Excellence

MARCH 2012

Designing and Coding Skills

Extensive

JAVA, JAVASCRIPT, PYTHON, C++, POSTGRESQL

Intermediate

ARM/X86 ASSEMBLY, SML, VHDL, MATLAB, HTML/CSS

Basic

SHELL SCRIPT, PHP