Ayush Sharma

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EDUCATION

IIT GUWAHATI
B.Tech. in Mathematics & Computing
Expected July 2019 | Guwahati, India
Cum. GPA: 8.64 / 10.0 (Current)

BHAVAN'S VIDYASHRAM
Grad. May 2015| 91.4% | Jaipur, India

LINKS

Github:// **AShar97**
LinkedIn:// **ayushsharma97**

COURSEWORK

UNDERGRADUATE

Probability Theory & Random Processes
Monte Carlo Simulation
Linear Algebra
Financial Engineering + Practicum
Discrete Mathematics
Data Structures & Algorithms + Practicum
Game Theory & Economics
Scientific Computing + Practicum *
Stochastic Calculus for Finance *
Operating Systems + Practicum *
Data Communication *
Optimization **
Formal Languages & Automata Theory **
Databases + Practicum **
Computer Networks + Practicum **
Online Courses (taken adjunct to the curriculum):
• Machine Learning (Coursera)
• Deep Learning (Udacity) *

* To be completed in Autumn 2017
** To be completed in Spring 2018

SKILLS

PROGRAMMING
C • Python • R • LaTeX

MISCELLANEOUS
MATLAB * • Arduino *

OPERATING SYSTEM
Windows • Linux

* Elementary Proficiency

PROJECTS

COLLECTIVE ROBOTICS | Robotics Club, IIT Guwahati
Ongoing

- Worked with project team to implement a modified version of Particle Swarm Optimization algorithm, for the collaborative searching mechanism, to achieve rendezvous task by the cumulative effort of multiple autonomous robots, functioning independently and without communicating with one another.
- Technology used: Python and Arduino.

TOY-LANGUAGE INTERPRETER | Academic Project
April 2017 | Prof. Kalpesh Kapoor

- Implemented an Interpreter for a toy functional programming language.
- Technology used: Python.

TRANSPORTED GENERALIZED EXPONENTIALLY DISTRIBUTED RANDOM NUMBER GENERATOR | Academic Project
April 2017 | Prof. Arabin Dey

- Implemented a random number generator for transported generalized exponential distribution in both uni-variate and bi-variate case.
- Technology used: R.

TYPING/SIGNAL AID (GLOVE) | Hobby Project
April 2016

- Implemented a glove like typing/signal aid for disabled people.
- Technology used: Arduino and Flex Sensors.

ACHIEVEMENTS

Institute Merit Scholarship	Awarded Institute Merit Scholarship for securing 1st position in the U.G. batch of 2019 (strength 53) of Department of Mathematics, in the academic session 2015-2016.
Joint Entrance Examination 2015	Secured position in the top 0.3% among 1.35 million candidates in the test, required for admissions to IITs.
KVPY 2014-15	Obtained (qualified for) the National Program for Fellowship in Basic Sciences (for high school students) by securing a position in the top 1% among 50,000 candidates.
NTSE 2010-11	Obtained (qualified for) the National Talent Search Scholarship by securing a position in top 1,000 candidates.

EXTRACURRICULARS

Intra-Batch Sports Competition	Secured 3rd position in the table-tennis event.
Community Service	Tutored high school students, from underprivileged background, in Physical Sciences and Mathematics, on weekends.