Ayush Agarwal

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| Third year Undergraduate, | B-223/10, IIT Kanpur |
| Computer Science and Engineering, | 8090686935 |
| IIT Kanpur. | ayushaga@iitk:ac:in |

Education

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| --- | --- | --- | --- |
| Year | Degree | Institute | CPI |
|  |  |  |  |
| 2017(Expected) | B.Tech, Computer Sc. | IIT Kanpur | 8:5=10 |
|  |  |  |  |
| 2013 | HSCE | St.Anselm's Sr. Sec. School | 89% |
|  |  |  |  |
| 2011 | AISSE | St.Anselm's Sr. Sec. School | 10/10 |
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Achievements

All India Rank 146 in JEE-Advance, 2013.

NTSE and KVPY Scholar

Bronze in Inter-IIT(2015) Data Analytics competetion.

Rank-1 in International Mathematics Olympiad(IMO) by SOF.

Amongnal 35 students selected for OCSC Camp for International Physics Olympiad(IPhO),2013 .

Cleared Regional Mathematics Olympiad(RMO) and National Standard Examination in Astronomy(NSEA). Secured AIR-8 in stage-1 National Science Olympiad(NSO) by SOF.

Secured Rank-26 in National Science Talent Search Exam (NSTSE).

Secured Rank-1 in Mathematics Genius Award (State level competition).

Projects

Backend Development and Network Establishment under Prof. Manindra Agarwal

Developed the backend Models and Api in scala using the Akka framework for handling http re- quests, Argonaut for marshalling/unmarshalling of json, and Slick for dealing with PostgresSQL database.

Developed a Cookie based Stateless Authentication System.

Established a cross host overlay network among Dockers in a CoreOS cluster using Weave.

Hotel Recommendation System

Developed a hotel recommendation based on the customer reviews. Wrote python scripts using BeautifulSoup to crawl customer review data from tripadvisor. Used this data for LDA to assign rankings to the hotels.

Portal for Academic Mentor System for Counselling Service,IITK

Developed an online portal for better interaction of Counselling Service and academically de cient students. Used MVC architecture from a Codeignitor (php-framework).

Application on Delaunay Triangulation

A python gui using Scipy, Tkinter, Numpy and OpenCV. Given an image as an input it used to convert it into an image made from very small triangles.

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Relevant Courses

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| --- | --- | --- | --- |
|  |  |  | (\*)Ongoing Courses |
| ESC101 | Introduction to Prog. | ESC201 | Introduction to Electronics |
| CS210 | Data Structure and Algorithms | MSO201 | Probability and Statistics |
| CS201 | Discrete Mathematics | CS202 | Logic in Computer Science |
| CS203 | Abstract Algebra | CS330\* | Operating Systems |
| CS220 | Computer Organisation | CS252\* | Computing Lab-II |
| CS251 | Computing Lab-I | CS340\* | Theory of Computation |
| CS345\* | Algorithms - II | CS653\* | Functional Programming in Haskell |
| Technical Skills | |  |  |
|  |  | |  |
| Languages | Haskell, Scala, C, C++, Python, Php, Dart | |  |
|  | Bash Scripting, Verilog |  |  |
| Platforms | Linux, CoreOS, Windows |  |  |
| Tools | Akka, PostgresSQL, Angular, docker, weave, vagrant | | |
|  | Git, Sbt, Octave, HTML, SCSS | |  |

Position of Responsibility

Academic Mentor, for Counselling Service Web Master, portals of Counselling Service Secretary, Animation Club, IITK

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