

# Gaurav Dhingra

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## EDUCATION

### INDIAN INSTITUTE OF TECHNOLOGY ROORKEE

MASTER OF SCIENCE, BACHELOR OF SCIENCE IN APPLIED MATHEMATICS  
2013 - 2018 (expected)  
GPA: 7.188/10

## OPEN SOURCE

• SymPy • mpmath • LibreOffice

## LINK

Github:// [gxyd](https://gxyd.github.io)  
Web:// [gxyd.github.io](https://gxyd.github.io)  
Twitter:// [@axyd0000](https://twitter.com/axyd0000)

## COURSEWORK

Design & Analysis of Algorithms  
Graph Theory  
Data Structures  
Introduction to Linux \*  
Statistical Inference  
Linear Algebra  
Discrete Mathematics  
Copyright \*  
(\* are MOOCs)

## SKILLS

### PROGRAMMING

Proficient:

• Python

Competent:

• C • C++ • BASH

Familiar:

• JavaScript • MySQL • CSS

### OPERATING SYSTEM

• GNU/Linux • Windows

### TOOLS & FRAMEWORK

• Vim • Git • Bootstrap

## TALKS

• Lightning Talk "Why Python is good for mathematical computation", PyDelhi 2016

## EXPERIENCE

### SYMPY | PULL REQUEST MANAGER

September 2017 - Present

- SymPy is a popular python library for symbolic computation with more than 4000 stars on github.
- Responsible to ensure that SymPy pull requests get reviewed quickly and help in SymPy release process.
- A position funded by NumFOCUS.
- Chosen for the position since of being one of the top contributors to SymPy.

### GOOGLE SUMMER OF CODE 2017 | SYMPY

May - July, 2017

- Worked on extending the computations using the Risch integration algorithm.
- Implemented algorithm for parametric logarithmic derivative problem.
- Trigonometric functions can now be integrated using the Risch algorithm.

### GOOGLE SUMMER OF CODE 2016 | SYMPY

April - Aug, 2016

- Created capability to do computation with Finite Groups and Finitely Presented Groups.
- Implemented coset enumeration algorithm for finitely presented groups.
- Reidemeister Schreier, low index subgroup algorithm for doing computation with subgroups and order of groups.

## PROJECTS

### SERIES CONVERGENCE, SINGULARITY AND ACCUMULATION BOUNDS IN SYMPY | ACADEMIC PROJECT

January - April, 2016

Academic Project on implementation of sum and product convergence of series in SymPy, a computer algebra system. Also implemented the Accumulation Bounds for assistance in computation of limits in SymPy.

### FINDING THE LEVEL OF AWARENESS AND ACCEPTANCE OF AYURVEDIC PRODUCTS | MARKETING RESEARCH

July - November 2015

- Conducted a study with reference to the disruption caused by Patanjali Products in FMCG Markets.
- Tested multiple hypothesis based on analysis of the sample collected.
- Compared the degree to which the respondents perceived ease of use and usefulness of online marketing with demographical questions.
- Relationships among different factors were obtained using chi-square test.
- Concluded that most people would find online marketing of ayurvedic products useful.