

# Gaurav Dhingra

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## EDUCATION

### INDIAN INSTITUTE OF TECHNOLOGY ROORKEE

MASTER OF SCIENCE, BACHELOR OF SCIENCE IN APPLIED MATHEMATICS  
2013 - 2018  
GPA: 7.380/10

## OPEN SOURCE

• SymPy • Flux • scikit-learn • mpmath  
• LibreOffice

## LINK

Github:// [gxyd](https://gxyd.github.io)  
Web:// [gxyd.github.io](https://gxyd.github.io)

## 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:

• Julia • BASH

Familiar:

• JavaScript • MongoDB

### OPERATING SYSTEM

• GNU/Linux • Windows

### TOOLS & FRAMEWORK

• Vim • Git

## EXPERIENCE

### DIGITAL ARISTOTLE | JUNIOR RESEARCH ENGINEER

Bangalore, India | June 2018 - Present

- Working on automatic mathematics question generation

### SYMPY | PULL REQUEST MANAGER

September and December 2017, February 2018

- 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.

## ML OPEN SOURCE CONTRIBUTIONS

### JULIA ECOSYSTEM FOR MACHINE LEARNING | OPEN SOURCE

since September, 2020

Contributing to few open source machine learning and differentiable programming libraries written in Julia. For ex. **Flux**, **Zygote** and **ChainRules**

## TALKS

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