# 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 Web:// gxyd.github.io Twitter:// @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.