






# Rohit ASHIWAL

## Computer Science Junior

 rohit-ashiwal  r1walz  +91 7340 605885  rashiwal@cs.iitr.ac.in  
 DF 09, Jawahar Bhawan, IIT Roorkee, Uttarakhand - 247667

Someone who is intrigued by computers, System Software hobbyist with interest in field of distributed programming and core disciplines of Computer Science

## EDUCATION

2017-Present Computer Science and Engineering, Indian Institute of Technology Roorkee  
2007-2017 St. Anselm's North City, Jaipur

## SKILLS

Programming	Python, Java, Kotlin, Go, JavaScript
System Programming	C/C++, Rust
Web Technology	React.js, HTML5, CSS3, Bootstrap
Utilities	Git, Shell Scripting, Vim, SQL, $\text{\LaTeX}$

## OPEN SOURCE

### GIT FOR WINDOWS

FEB' 19 - PRESENT

 git-for-windows/git

MinGit in Windows comes without gzip bundled inside. git-archive uses "gzip -cn" to compress the commit tree but for this to work gzip needs to be present on the host system. My work was to add minimal code to eliminate the need for this gzip dependency.

C

### GIT

FEB' 19 - PRESENT

 git/git

The tests in 't3600-rm.sh' were written long time ago, and has a lot of style violations, including the mixed use of tabs and spaces, not having the title and the opening quote of the body on the first line of the tests, and other shell script style violations. I added helper function to make errors verbose and modernized style.

Shell

## PROJECTS

### APPI

JAN' 19 - PRESENT

 The backend of Appetizer

A campus app that helps in reducing food wastage within the campus. My work was improve the UI of the "menu", the interface through which wardens and mess secretaries add mess week menu, adding Django models for toggling tasks in android app and processing csv and xsl file for attendance marking.

Django JavaScript JQuery

### RUSTY-SNAKE

DEC' 18 - JAN' 19

 r1walz/rusty-snake

It is a simple snake game developed by using Rust and piston\_window.

Rust

### GO-PLAY

AUG' 18 - PRESENT

 r1walz/go-play

A web app that handles request over local-network and plays music. The backend of this app was written in Go and frontend in React.

Go React

### TRIANGLIFY

JAN' 18 - PRESENT

 mdg-iitr/trianglify

Highly customizable library to generate beautiful triangle art views for android, I improved the saving feature in App and [WIP] make a live wallpaper app out of this lib.

Java Android Algorithm

## OBJECT ORIENTED PROGRAMMING

AUG' 17 - NOV' 17

In depth course on fundamentals of Object Oriented Programming with an introduction to languages such as Java and C++.

OOP Java C++

## OPTIMIZATION TECHNIQUES

AUG' 17 - NOV' 17

Fundamentals of optimization techniques used in Computer Science along with basics of Game Theory.

Linear Algebra Game Theory Scheduling

## DATA STRUCTURES

JAN' 18 - MAY' 18

An introduction to fundamentals data structures used in programming along with basics of Number Theory.

Data Structures Algorithm Number Theory

## COMPUTER ARCHITECTURE AND MICROPROCESSORS

JAN' 18 - NOV' 18

A course to familiarize students with the architecture of a processor and machine level programming with a glimpse of assembly language **MIPS**

Architecture Assembly 8085 8086

## OPERATING SYSTEMS

JAN' 19 - MAY' 19

A course about Operating Systems, deals with topics such as Memory and Resource Management, Process and Resource Scheduling, Device Management. We also worked on implementing a new kind of scheduler policy for the Linux kernel.

C Linux Kernel

## SYSTEM SOFTWARE

JAN' 19 - MAY' 19

Very involving course on the study of design and functioning of a system program. The course revolved around an hypothetical machine, "SIC". We also developed several system softwares for this machine including, but not limited to, an assembler.

SIC SIC/XE Assembler

## WORK

---

May' 19 Present	<b>Student Software Developer, Git, Google Summer of Code</b> Google Summer of Code is a global program focused on bringing more student developers into open source software development. <ul style="list-style-type: none"> <li>&gt; Worked with Git to improve consistency of sequencer commands</li> <li>&gt; Added requested features to git-for-windows</li> </ul>
May' 18 Present	<b>Hacker, INFOSEC, IIT Roorkee</b> InfoSec is a group of students that spread awareness about information security. <ul style="list-style-type: none"> <li>&gt; Spread awareness about Information and Cyber Security</li> <li>&gt; Conduct CTFs, viz, backdoorCTF, n00bCTF</li> </ul>
Jan' 18 Jan' 19	<b>Developer, MOBILE DEVELOPMENT GROUP, IIT Roorkee</b> MDG is a small group of students that foster android development in the campus premise. <ul style="list-style-type: none"> <li>&gt; Spread knowledge about android and related technologies</li> <li>&gt; Conduct open lectures for campus students</li> </ul>
Jan' 18 Mar' 18	<b>Android Developer, COGNIZANCE, IIT Roorkee</b> Cognizance is the official technical festival of IIT Roorkee. <ul style="list-style-type: none"> <li>&gt; Improved UI and UX of the Android app.</li> <li>&gt; Worked on REST APIs</li> </ul>
May' 17 Jul' 18	<b>Cadet, NATIONAL CADET CORPS, IIT Roorkee</b> The NCC is an Indian military cadet corps with its Headquarters at New Delhi, Delhi <ul style="list-style-type: none"> <li>&gt; Participated in the Guard of Honor Parade</li> <li>&gt; Conducted Blood Donation Camps, Tree Plantation Drive, etc</li> </ul>

## **+** POSITION OF RESPONSIBILITY

---

**Dec' 18** | **Mentor, WINTER OF CODE, MDG**

**Jan' 19** | WoC is an event, just like GSoC, conducted jointly by MDG and SDS Labs.

- Mentored a bunch of students to make android application during their winter holidays
- Interviewed selected students

**Dec' 18** | **Organizer, DROID WARS, MDG**

**Jan' 19** | Droid Wars is an event conducted by MDG where students make android applications based on predeclared theme.

- Mentored some students
- Conducted interview of selected students