# Hrishikesh Hiraskar

Room D207, Mega Tower III, NITK Hostels, NITK, Surathkal, Mangalore, INDIA - 575 025

| Email | hrishihiraskar@gmail.com |
|---|---|
| Phone | +91 8147 298 166 |
| Website | https://hrily.github.io/ |

# Experience

**INTERNSHIPS**

### Software Engineering Intern  MAY 2018 – IN PROGRESS
**GOOGLE SUMMER OF CODE - HAIKU OS**  🔗
Developed TrackGit App - an Git addon for File Browser. Used Libgit2 API's for execution of git commands. Designed and implemented user interfaces for various git commands
Proposal.  Wiki & Progress Reports.  Prototype.

### Software Engineering Intern  MAY 2018 – JUL 2018
**ARISTA NETWORKS - BANGALORE**  🔗
Worked on sharing of shadow memory of TCAM tables between agents. Special role in taking care of memory offsets for entries in table. The project lead to 13% reduction in memory usage. Also worked on enhancing product test functionality.

### Software Engineering Intern  MAY 2017 – JUN 2017
**HAQDARSHAK - MUMBAI**  🔗
Full Stack development of Web App for monitoring records, using MySQL, Python Flask Server, and Material UI. Special role in optimizing database queries, developing user friendly and responsive UI. Added features like background syncing and on device generation of PDF (with word-processor) to hybrid Android app.

### Software Engineering Intern  AUG 2016 – DEC 2016
**XCOS-ON-WEB - FOSSEE - IIT BOMBAY**  🔗
Revamped the Server Architecture and implemented Dynamic Plotting of Hybrid Systems. My work was based on Python Flask server and HighCharts JS API.

**START UPS**

### Lead Web, App and Product Developer  IN PROGRESS
**WHEELS ON ROLL - NITK**  🔗
An Automated Cycle Rental IoT Service.Developing Android App using Firebase. Developed Website using MaterializeCSS & jQuery based on Google's Material Design. Developing IoT framework for automation of rentals using RPi. Also developing an Automated Cycle lock which uses RFID System and RPi.

# Selected Projects

All and more projects at : `https://github.com/Hrily`

### SimpleDB  🔗
Implementing core modules of a Relational Database Management System using JAVA, capable of handling storing and accessing data from disk, table modifications (Select, Join, Aggregates), Query Optimizer, Query Cost Calculator and locking-based transaction system.

### Alignment of PIE AQM in Linux  🔗
The aim of this project was to identify and implement the differences in Linux Kernel implementation of PIE and the RFC 8033 and to patch them. Testing for our changes was done using Flent (FLExible Network Tester) tool and the test used was RRUL (Real-time Response Under Load).

### MDList  🔗
An implementation of "An Efficient Lock-free Logarithmic Search Data Structure Based on Multi-dimensional List". The implementation was done in C++ & testing was done using Boost testing framework. The documentation was done using Doxygen. It was 200% faster in multi-threaded environment compared to C++ map.

### SimOS - OS Course Project  🔗
Interactive Simulation of basic principles applied in Operating Systems. Special role in Inter-process communication, pipe-lining and server architecture. Led team of 11 members over a period of three months.

### Zbot - Text Games  🔗
Chat bot to play text based games from ZMachine. Under beta testing on Actions on Google (Apps for Google Assistant). Also developed Android App for the same, with Rich Material UI.(On Going)

# Extra Curricular

- Executive Member at IEEE-NITK Student Branch.
- Executive Member and Web and App Head at Web Enthusiast's Club NITK.
- Mentor for DBMS and Cloud Computing Summer Project 2017 at IEEE, NITK.
- Tweaking Android and Ubuntu for Personalization.

- Active Blog writing at IEEE NITK and Personal Blog.
- Desing portfolio maintained at hrily.github.io/Design & Dribbble.
- Competitive Programming at Codechef, Uva, Hackerrank.
- HrilyScreens Page on Facebook - Home Screen theming on Android.

## Education

**National Institute of Karnataka (NITK), Surathkal, Mangalore.**
B.Tech. in Computer Engineering.
CGPA: 8.3 (Jul 2018)

**Walchand College of Arts and Science, Solapur, Maharashtra.**
Percentage - 93.43%. College Topper.
JEE Mains AIR - 3003.

**S. R. Chandak English High School, Solapur, Maharashtra.**
Percentage - 93.63%.

## Technical Skills

**LANGUAGES AND SCRIPTS**

| | | | |
|---|---|---|---|
| C, C++ | ●●●○ | Python | ●●●● |
| HTML/CSS | ●●●○ | JS/JQuery | ●●●○ |
| Java | ●●○○ | Android | ●●○○ |
| TypeScript | ●●●○ | Assembly | ●●●○ |

**DBMS**
SQL, MySQL, Firebase, Android SQLite.

**TOOLS AND FRAMEWORKS**
MATLAB, Scilab, Android Studio, Angular, PhoneGap, Git, C++ STL, Vim, Photoshop, COREL Graphics Suite, Microsoft Azure, ThreeJS, MaterializeCSS, Jekyll.

## Training and Courses

Oct 16
Google Applied CS with Android, at NITK.

Summer 16
Machine Learning, under ACM NITK.

Sep 16
Ethical Hacking, at Engineer NITK.

Jul 15
Android Development, NIIT Solapur.

**ACADEMIC COURSES**
Data Structures and Algorithms, Design and Analysis of Algorithms, Operating System, Automata Theory, Software Engineering, Computer Organization and Architecture, Data Communication, Object Oriented Programming, Concrete Mathematics.

## Achievements

- Winner of Microsoft code.fun.do 2016-17 as well as 2015-16 Campus Hackathon at NITK.
- Represented College at Microsoft code.fun.do 2016-17 SHOWCASE, organized at Microsoft IDC, Hyderabad.
- Recipient of Reliance Dhirubhai Ambani Scholarship.
- Recipient of Maharashtra State High School Scholarship.