



Hrishikesh Hiraskar

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Experience

INTERNSHIPS

Student Developer MAY 2018 – AUG 2018

GOOGLE SUMMER OF CODE - HAIKU OS [↗](#)

Developed TrackGit App - a Git add-on 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](#). [Documentation](#)

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

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>

Integration of Intel DPDK in ns-3 ONGOING [↗](#)

DPDK is a set of libraries by Intel to provide fast packet processing by bypassing kernel stack. ns-3 is a network simulator which also provides network emulation support to communicate to real hosts. The project aims at providing direct access to Ethernet device in ns-3 using DPDK APIs.

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 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). A [patch](#) has been sent to Linux and under review.

MDList [↗](#)

An implementation of "An Efficient Lock-free Logarithmic Search Data Structure Based on Multi-dimensional List". 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 10 members over a period of three months.

Extra Curricular

- Executive Member at IEEE-NITK Student Branch.
- 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.

- Blog writing at [IEEE NITK](#) and [Personal Blog](#).
- Design 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 Technology
Karnataka, Surathkal.

B.Tech. in Computer Engineering.
CGPA: 8.23 (Jul 2018). Batch of 2019.

Walchand College of Arts and Science,
Solapur, Maharashtra.

Percentage - 93.43%. College Topper.
JEE Mains All India Rank - 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.

OPEN SOURCE CONTRIBUTIONS

- [Xcos-on-Web](#) - implemented Dynamic plotting of Hybrid Systems.
- [Spidy](#) - made the crawler multi threaded.
- [Browsix](#) - improved Terminal UI.

Training and Courses

Oct 2016
Google Applied CS with Android, at NITK.

Summer 2016
Machine Learning, under ACM NITK.

Sep 2016
Ethical Hacking, at Engineer NITK.

Jul 2015
Android Development, NIIT Solapur.

Achievements

- Mentor at Google Code In 2018 for Haiku OS.
- 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.