Haresh **Khanna**

COMPUTER SCIENCE SENIOR · OPEN SOURCE ENTHUSIAST

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Education

Indian Institute of Technology Roorkee   *Roorkee, India*

BACHELOR OF TECHNOLOGY · COMPUTER SCIENCE AND ENGINEERING   *July, 2015 - Present*

- CGPA : 9.098/10.0

Experience

Adobe Systems Pvt Ltd   *Bengaluru, India*

RESEARCH INTERN   *May, 2017 - July, 2017*

- Worked on *Privacy and Utility tradeoff in data sharing* in a B2B setting.
- Came up with a new technique based on generative modelling using DNNs to achieve the desired trade-off and filed a **patent**.

Elanic Systems Pvt Ltd   *Bengaluru, India*

ANDROID DEVELOPMENT INTERN   *December, 2017*

- Developed an android custom view library (available on **jCenter**) for displaying multiple images in a grid type layout.
- Individual images in the grid can be zoomed and panned, and the images itself re-sized.
- Similar functioning to **Layouts** *by Instagram* with added feature of saving and restoring grid state.

Google Summer of Code   *Remote*

CONVERSATIONS.IM   *May, 2017 - July, 2017*

- Worked on **in-band real-time text** transmission, including key-press intervals, in a production-grade chat application.
- Implemented **XEP-0301** protocol of **XMPP**.

Achievements

2017	**Finalist**, Smart India Hackathon organised by Government of India	*India*
2016	**Finalist**, InOut Hackathon 3.0	*Surat, India*
2015	**ICPC Regionals**, Selected for ICPC Amritapuri Regionals	*Amritapuri, India*
2015	**All India Rank 392**, Joint Entrance Exam Advanced, 150000 candidates	*India*
2014	**KYPY Scholarship Awardee**, Indian Institute of Science and Government of India	*India*
2013	**NTSE Scholarship Awardee**, NCERT, Government of India	*India*
2013	**Among top 30**, CBSE Group Mathematical Olympiad, among all candidates across India.	*India*

Projects

Hussain - Artistic low-poly rendition   *Prof. Ranita Biswas*

PYTHON,C++,SHELL   *February, 2018 - April, 2018*

- Made an application to convert images to a coloured triangulated form using OpenCV and self-implemented algorithms.
- Implemented the research paper : *Gai, M. & Wang, G. Vis Comput (2016) 32: 491.* `https://doi.org/10.1007/s00371-015-1082-2`

Aasha - the Rural Doctor   *Prof. Sandeep Kumar Garg*

JAVA, XML   *February, 2017 - April, 2017*

- Made an Android App and Web Interface to book and change appointments, keep track of visiting doctors.
- Made an SMS Server Android application which helps devices without internet to connect to database and services using SMS

Stroom   *InOut Hackathon 3.0*

JAVASCRIPT(NODEJS, EXPRESS), HTML   *August, 2016 - September, 2016*

- Developed a music player that plays music in sync across various devices to amplify and enhance sound.
- The music is streamed from SoundCloud and is synced using a local server, which is one of the sound playing devices.

Magneto-Mania   *Mobile Development Group*

Java, ʟɪʙGDX   *May, 2016 - August, 2016*

- Cross platform game, deployable on Android/iOS/Web.
- The game play involves dodging obstacles on the screen and collecting floating score bubbles.

Extracurriculars

Mobile Development Group (MDG)   *IIT Roorkee*

Member   *January, 2016 - Present*

- Involved in development of android applications.
- Organised and conducted open lectures for students on android development and game development.

ACM Student Chapter   *IIT Roorkee*

Web Head   *July, 2016 - May, 2018*

- Developed the portfolio website for the group from scratch.
- Helped in organizing events like Code.Fun.Do.

Student Mentorship Program   *IIT Roorkee*

Mentor   *July, 2017 - Present*

- Mentor for two consecutive academic sesions.
- Involved in mentoring the freshmen, helping them pick-up pace from the initial days.

Watch Out   *IIT Roorkee*

Editor   *August, 2015 - May, 2018*

- Official news body of the campus.
- Involved in writing articles and maintaining the website : `http://wona.co.in`

Student Affairs Council   *IIT Roorkee*

(Nominee) General Secretary Technical Affairs   *July, 2017 - May, 2018*

- Involved in the technical activities of the elected Student Affairs Council.

Skills

Programming	Java, C/C++, Python, JavaScript, libGDX
Web	Node.js, Django
Utilities	Git, Sublime Text, Android Studio, Linux Shell Utilities, ADB, LaTeX

Relevant Coursework

A	Database Management Systems	A	Computer Networks
A	Operating Systems	A	Software Engineering
A	Design and Analysis of Algorithms	A	Object Oriented Analysis and Design
A	Compiler Design	A	Data Structures
·	System Software	·	Computer Architecture
·	Network Programming	·	Machine Learning
i	Advanced Operating Systems	i	Advanced Computer Networks

A: Grade   *i: Course in progress*

Miscellaneous

- Volunteered in NSS in first year of college. Tutored 5th-6th grade school kids from low-income families.

- Interested in Swimming, Badminton and Roller Skating.

- Contributed to open source projects like Conversations.im, apart from some self-owned open source projects on Github.