

# SHIVAM PRASAD

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## EDUCATION

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**Indian Institute of Technology, Ropar**

*July 2017 - Present*

B.Tech in Computer Science & Engineering

Current GPA: 8.66/10

**CISCE**

ISC(Class 12): 95%

ICSE(Class 10): 96.8%

## TECHNICAL STRENGTHS

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**Computer Languages**

C/C++, Java

**Tools/OS**

Android Studio, MATLAB, OpenCV, Git, Linux

## PROJECTS

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**Heart rate detection using camera on mobile phone**

*Android Studio, Java, OpenCV, Matlab*

*May 2018 - July 2018*

- Ported Dr. Antony Lam's and Dr.Yoshinori Kuno's MATLAB code for *Robust Heart Rate Measurement from Video Using Select Random Patches* to Android.
- Used OpenCV for face detection using pretrained HAAR Cascade Classifiers and image data processing.
- Wrote Java code for some MATLAB functions and OpenCV image data processing from scratch.
- Implemented matrix operations in Java using Apache Commons Math library.
- Project was supervised by Dr. Abhinav Dhall.

**K-Means for Spam Detection in C**

- Wrote a program from scratch for applying K-Means Clustering Algorithm and Logistic Regression on Character-Array in C.
- Used for filtering spam messages from non-spam messages.
- Trained and Tested on a subset of NUS SMS Corpus.

**Other Projects**

- Implemented Quine-McCluskey algorithm for logic minimization in C++.
- Made a polar to rectangular coordinate converter for Basys 3 in verilog.
- Automated Service Robot using Raspberry Pi. (Ongoing Project)

## RELEVANT COURSES

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**Computer Science**

Introduction to Programming in C, Data Structures, Digital Logic Design

**Mathematics**

Calculus, Linear Algebra, Discrete Mathematics, Differential Equations

**Others**

Signals and Systems

## POSITIONS OF RESPONSIBILITY

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**Coding Club Coordinator**

*August 2018 - Present*

- Conduct regular coding sessions for juniors and organise regular coding contests.

**Quizzing Club Representative**

*August 2018 - Present*

- Organise club sessions and participate in quizzing events.

## MISCELLANEOUS

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**JEE Rank**

Secured rank 1882 (Out of 1.5 million candidates) in Joint Entrance Exam, 2017.

**Volunteer Work**

Worked as a part of event management team in college fests.

Volunteered for Baja Sae India.