SHIVAM PRASAD

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EDUCATION

Indian Institute of Technology, Ropar   *July 2017 - Present*
B.Tech in Computer Science & Engineering
Current GPA: 8.49/10

CISCE
ISC(Class 12): 95%   ICSE(Class 10): 96.8%

TECHNICAL STRENGTHS

Computer Languages	C/C++, Java, Python
Tools/OS	Android Studio, MATLAB, OpenCV, Git, Linux, Verilog

PROJECTS

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 strings.
· Used for filtering spam messages from non-spam messages.
· Trained and Tested on a subset of NUS SMS Corpus.

Other Projects
· Read research papers on Bluetooth Security and attacks on the E0 Stream Cipher.
· 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.

RELEVANT COURSES

Computer Science	Introduction to C Programming, Data Structures, Digital Logic Design, Programming Pragmatics*, Computer Architecture*
Mathematics	Calculus, Linear Algebra, Discrete Mathematics, Differential Equations, Probability and Statistics*
Others	Signals and Systems

· Ongoing courses have been marked with (*).

POSITIONS OF RESPONSIBILITY

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

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.