

SHIVAM PRASAD

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EDUCATION

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

July 2017 - Present

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 <https://github.com/JuliaLang/julia.giterilog>.
- 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.