

# Sankalp Ramesh

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## EDUCATION

### IIT KHARAGPUR

M.TECH(DUAL DEGREE) IN  
COMPUTER SCIENCE

Expected May 2021

Cum. GPA: 9.0 / 10.0

### VIDYA VIKAS ACADEMY

Grad. May 2016 | Margao, Goa

HSC CBSE

Percentage : 96%

### NAVY CHILDREN SCHOOL

Grad. May 2014 | Dabolim, Goa

SSC CBSE

CGPA : 10/10

## LINKS

Github:// [sankalpramesh](#)

LinkedIn:// [sankalp-ramesh](#)

## COURSEWORK

### UNDERGRADUATE

Operating Systems(Ongoing)

Computer Networks(Ongoing)

Database Management System(Ongoing)

Information Retrieval(Ongoing)

Cryptography

Data Analytics

Compilers

Computer Organisation and Architecture

Formal Language and Automata Theory

Probability and Statistics

Discrete Structures

Switching Circuits

Software Engineering

Algorithms and Data Structures

### MOOC COURSES

Machine Learning by Andrew Ng

Neural Networks and Deep Learning

Improving Deep Neural Networks:

Hyperparameter tuning, Regularization  
and Optimization [Ongoing]

## SKILLS

### PROGRAMMING

• C • C++ • Java • Verilog • MySQL  
• Python • HTML/CSS • Shell • R

### SOFTWARE

• NetBeans • Xilinx • Solid Works  
• MATLAB

## ACADEMIC PROJECTS AND ACTIVITIES

### CONVEX POLYGONAL SHAPE RECOVERY OF PROGRAMMABLE PARTICLES | ALGORITHM DESIGN

IIT Guwahati, India

Summer 2018

Guide : Prof. Partha Sarathi Mandal

Mathematics

- Devised an algorithm which is the solution for the problem of convex polygonal shape recovery in the system of programmable particles.
- Successfully devised an algorithm for the special case with the presence of a single fault. [View Report](#)

### AUTOMATIC ANNOTATION OF POSITION DATA | MATLAB, PYTHON

IIT Kharagpur, India

Winter 2017

Guide : Prof. Partha Pratim Das

Computer Science

- Devised an algorithm to annotate key postures of Dancers using data containing the joint coordinates of the frames of 30fps Bharatanatyam dance videos.
- Implemented codes for getting data into an usable structure in MATLAB, and created codes to measure speeds of limb segments and cancel noise created by small variations, in Python.

### COMPILER | TINYC

Kharagpur, India

July 2018 - November 2018

- Involved design of a reduced C compiler using flex, bison, gnu assembler for x86-64 architecture.
- The compiler supported C functionalities such as variable declarations, assignments for int, double, char, pointers, loops, conditional statements, function definitions, function calls, arithmetic operations, and variable scopes.

### KGP-RISC PROCESSOR DESIGN | VERILOG

Kharagpur, India

July 2018 - November 2018

- Designed a single cycle RISC processor using Verilog for an Instruction Set Architecture(ISA) similar to MIPS-32 ISA. It was a part of COA lab
- Successfully implemented and simulated the entire design with a proper test bench.

### ONLINE TOURIST MANAGEMENT SYSTEM | JAVA, MYSQL

Kharagpur, India

Jan 2018 - April 2018

- Created a desktop based application to provide a platform for tourists to plan a trip.
- Ticket, hotel, cab booking/cancellation were implemented and the database was managed using MySQL.
- Created the full Software Requirement Specifications, UML diagrams and implemented the functional requirements and the user profile using the NetBeans Platform.

## AWARDS AND ACHIEVEMENTS

- 2017 Ranked **AIR 360** of 3,290 participants in ACM ICPC
- 2016 Ranked **AIR 369** out of 1.5 lakh participants in JEE Advance
- 2016 Ranked among **top 0.2%** of 1.5 million participants in JEE Mains
- 2014 **Best Sports person** at Navy Children School, Goa

## INVOLVEMENTS

### CODECLUB, IIT KHARAGPUR | G. Sec.

October 2017 - Present

- Organized and managed **up.AI**, the institute's first Artificial Intelligence summit.
- Organised **Code Nights**, **Microsoft Code.Fun.Do**.

### NATIONAL CADET CORP | Cadet

2015-2017