

Avinash Madhukar

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EDUCATION

UNDERGRADUATE

UPES

B.TECH IN COMPUTER SCIENCE

Expected May 2018 | Dehradun, India

School of Computer Science

Semester (6)

Cum. GPA: 2.70 / 4.0

Major GPA: 2.83 / 4.0

SCHOOL

MODERN INTERNATIONAL SCHOOL

Grad. May 2013 | Delhi, India

Percentage: 73

LINKS

Github:// [chshbh](#)

Codechef:// [chshbh](#)

Hackerrank:// [chshbh](#)

Facebook:// [Avinash Madhukar](#)

COURSEWORK

MOOCS

MITx 6.00.1x, edX

Google Python Class

Machine Learning, Coursera (ongoing)

UNDERGRADUATE

Mathematics for Computer Science

Data Structures

Design and Analysis of Algorithms

Operating System

OOPS Programming

Theory of Computation

Introduction to Open Source

SKILLS

PROGRAMMING

Basic:

• C/C++ • Shell (bash) • Java • R • Rexx

Intermediate:

• Python

TOOLS AND PACKAGES

• anaconda (python distribution) • git •

make • cProfile • flex

DEVELOPMENT ENVIRONMENT

• Sublime Text 3 • VIM • nano •

Code::Blocks • Netbeans

PROJECT

YATE, YET ANOTHER TEXT EDITOR | AUG 2016 - NOV 2016

To create a lightweight text editor using C and Python language.

- Created a primitive text editor using curses library.
- Security Algorithms: Base64 Encoding, AES Encryption, SHA256 Hashing, and String Obfuscation.
- Each file would be replicated with algorithms separately, generating four unique files.

A GRAPH HEADER FILE | FEB'17 - ONGOING

To create a Graph library (a partial implementation of CS 97SI).

- Graph library for C++ and python
- supports both Adjacency Matrix and List to store graph
- supports Graph Traversal using DFS & BFS
- does Topological Sort
- checks for Eulerian Circuit
- finds Minimum Spanning Tree using Kruskal's & Prim's
- checks for Strongly Connected Components (SCC) using Kosaraju's

PASSWORD MANAGER | ONGOING

To create a personal password manager.

- SqlCipher Database is used to encrypt the database file with AES.
- peewee ORM is used to map and interact with the database.
- Create, store, edit and generate password, that allows user to use a single "master" password to generate unique passwords for all the sites and services.
- Generated unique password using SHA.

RESPONSIBILITY

CLASS REPRESENTATIVE | NOV 2015 - PRESENT

UPES,

Gather views from peers regarding various aspects of their course and to communicate those to members of staff.

SENIOR MEMBER | SEPT 2016 - PRESENT

Programming Group,

Conducting classes and organizing discussion panel on Programming and Open Source.

ACHIEVEMENTS

2016	3413/58520	Google Code Jam, Qualification Round
2016	2476/13388	Codechef Snackdown, Qualification Round
2016	596/9077	Codechef Snackdown, Elimination Round
2016	16th	Master the Mainframe, IBM
2016	Cleared	Facebook HackerCup, Qualification Round
2016	Cleared	Yandex Algorithm, Qualification Round
2016	Participated	dgplug Summer Training