# Mohammed Shahraaz Hussain

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## **EDUCATION**

#### **NIT CALICUT**

**B.Tech Computer Science** 

07/2017 - Ongoing Calicut, Kerala

Cum. GPA: 8.4 / 10.0

#### NARAYAN JUNIOR COLLAGE

HIGHER SECONDARY EDUCATION BOARD TS

06/2015 - 04/2017 Hyderabad, Telangana Score: 977 / 1000

#### NARAYANA HIGH SCHOOL

SECONDARY SCHOOL CERTIFICATE 06/2014 - 05/2015 Hyderabad, Telangana Cum. GPA: 9.5 / 10.0

#### LINKS

Codeforces://Shahraaz Codechef://Shahraaz Github://Shahraaz LeetCode://Shahraaz LinkedIn://Shahraaz

# COURSEWORK

#### **UNDERGRADUATE**

Data Structures and Algorithms
Discrete Structure
Operating Systems
Computer Organisation
Data Science
Database Management Systems
Unix Tools and Scripting

# SKILLS

#### **PROGRAMMING**

C • C++ • Java

Python • Javascript • HTML • CSS

NASM • MySQL

Cuda C++ • Verilog

JavaScript Libraries

express • ejs • passport

# HOBBIES

Competitve Programming Gym

## **PROJECTS**

#### TWITTER MINI | JAVASCRIPT AND MYSQL

10/2019 - 11/2019 | Nit Calicut

- A Twitter-like web app to run concurrently using cookies and sessions
- Backend implemented in javascript used local strategy to authenticate
- Designed a relational database in MySQL to integrate features such as tweet, retweet, follow, unfollow and an option to discover new people
- Link: github.com/Shahraaz/Twitter-Mini

#### **EXPERIMENTAL OPERATING SYSTEM** | XSM AND EXPL

7/2019 - 11/2019 | Nit Calicut

- Designed and Implemented a toy Operating System with basic features from scrath
- Wrote Code to Schedule Processes in Operating System, Allocate Resources, take Console Input and give Console Output, Disk Interrupt Handler, Exception Handler ans Forking a process
- OS was made to support 16 Processes and 32 Semaphores
- Link: github.com/Shahraaz/ExperimentalOS-eXpOS

# OUTER PLANAR GRAPH PARTITION INTO 3 CO-GRAPHS | C++

05/2019 - 07/2019 | Nit Calicut

- Improved the running time of the above algorithm under PHD Scholar Daphna Chacko, Nit Calicut. Wrote code to generate outer planar graphs.
- Improved running time from 10 minutes for a graph of size 30 to 15 seconds.
- Speed up 40 times
- Pushed the maximum Limit of input graph to 50 nodes (40 Seconds).
- Reference: daphna.chacko@gmail.com

# FIREWALL LOGIN MANAGER WITH VERSION CONTROL TOOLS FOR COMPETITIVE PROGRAMMING | BASH AND PYTHON

05/2019 - Ongoing | Nit Calicut

- Tools Designed to Automate Version Control, Login and Logout from Institute Firewall.
- Saves the need to enter the password for institute firewall every time.
- Ensures that you are not Blocked out of Firewall Accidentally.
- Pushed the maximum Limit of input graph to 50 nodes (40 Seconds).
- Link: github.com/Shahraaz/Script

#### RISC PROCESSOR DESIGN | VERILOG

07/2018 - 01/2019 | Nit Calicut

- Designed and Implemented basic 32-bit CPU from first principles in verilog
- Made Arithmetic and Logical Unit, also made Memory elements using sequential Design patterns
- Link: github.com/Shahraaz/CPUVerilog

# **ACHIEVEMENTS**

2019 top 40/130 ACM ICPC Regionals Pune - Gwalior Regionals
 2019 Honourable Mention ACM ICPC Regionals Amritapuri Regionals