# Talha Paracha

#### http://talhaparacha.com

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## **EDUCATION**

#### **NUST, ISLAMABAD**

BE, SOFTWARE ENGINEERING

Cum. GPA: 3.72 / 4 2014 - 2018

## COURSEWORK

#### **ONLINE**

Machine Learning
Intro. to Psychology
Intro. to Philosophy
Digital Image Processing
Intro. to Theoretical Comp. Science

#### **UNDERGRAD**

Design & Analysis of Algorithms
Data Structures & Algorithms
Object Oriented Programming
Introduction to Programming
Computer Networks
Database Systems
Discrete Mathematics
Computer Architecture
Software Engineering
(only relevant courses mentioned)

# **SKILLS**

#### **LANGUAGES**

C & C++ PHP & MySQL HTML & CSS

#### **TOOLS**

Git Photoshop Wordpress & Drupal

#### LINKS

Website:// talhaparacha.com Github:// github.com/talhaparacha Drupal:// drupal.org/u/talhaparacha

## **EXPERIENCE**

## GOOGLE SUMMER OF CODE | DRUPAL DEVELOPER

Summer 2016

- Built a security-related module for Drupal, the popular open-source framework for web development.
- The module secures a website's Data at Rest by encrypting it with users' login credentials.
- Google sponsored all the work via the GSoC'16 program.

(see more project details @ drupal.org/project/pubkey\_encrypt)

## **ACHIEVEMENTS**

## WINNER | Women Transport Innovation Hackathon

September 2015 | Sponsored by UN-Women

- Developed an SOS Android app + website for women.
- Features included offline GPS based monitoring & offline cab's numberplate photo sharing/retrieval.

#### WINNER | SEECS Social Hackathon

March 2015 | Sponsored by Telenor

• Developed an Android app for entry test preparation based on a crowdsourcing model.

# **RECIPIENT** | Rector's Appreciation Award to High Achievers

For Year 2015 | Sponsored by NUST

## **PROJECTS**

# **TEXT COMPRESSION** | LEMPEL-ZIV ALGORITHM & SUFFIX TREES

Jan 2016 | Written in C++

- Built Suffix Trees using Ukkonen's online algorithm.
- Using them, implemented the original Lempel-Ziv algorithm for text compression. The whole operation was thus kept linear in time with respect to the size of input string.
- Compression of 1 million alphanumeric characters took 13 seconds to complete and resulted in a reduction of around 0.2 million characters.

# WEBTIMIZE.ME | COMPREHENSIVE WEBSITE SEO AUDIT TOOL

June 2013 | Written in PHP

- Developed an online SEO report generator.
- The bot started by crawling up to 500 internal pages of a website and then checked for 10+ basic but important SEO factors including broken 404 links, missing alternate texts on images, user-friendly URLs, duplicate title tags, GZIP compression and a few others.
- The results then got compiled in a PDF format along with the recommended actions to take for each check which resulted negatively.