

# Talha Paracha

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<http://talhaparacha.com>

## EDUCATION

### NATIONAL UNIVERSITY OF SCIENCES & TECHNOLOGY

Bachelors in Software Engineering  
2014-2018

Cumulative GPA: 3.72 / 4

### ARMY PUBLIC SCHOOL & COLLEGE

Intermediate  
2012-2013

Percentage Acquired: 84%

### AMARANTH SECONDARY SCHOOL

Matriculation  
2010-2012

Percentage Acquired: 88%

## COURSEWORK

### ONLINE

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

### UNDERGRAD

- Object Oriented Programming
- Design & Analysis of Algorithms
- Intro to Data Structures
- Computer Networks
- Computer Architecture
- Database Systems
- Software Engineering
- Discrete Mathematics

## SKILLS

### LANGUAGES

C & C++ • PHP & MySQL •  
HTML & CSS

### TOOLS

Git • Wordpress • Photoshop

## LINKS

Website:

[talhaparacha.com](http://talhaparacha.com)

Github:

[github.com/talhaparacha](https://github.com/talhaparacha)

Facebook:

[fb.com/paracha.talha](https://fb.com/paracha.talha)

## WORK EXPERIENCE

### GOOGLE SUMMER OF CODE

Drupal | Summer 2016

- I'm building a security related module for Drupal, the popular open-source software for web development.
- The module aims to encrypt and secure websites data using users' login-credentials.
- All the work is being sponsored by Google via the [GSoC'16 program](#).

### BLOGGING

hitechanalogy.com | 2011 - 2013

- Wrote product reviews and comparisons on devices from Apple, Samsung etc.

### SITE BUILDING

Wordpress | 2010 - 2015

- Built and managed several Wordpress based websites for various clients.
- [collegesmartcounselling.com](#) is the most recent project.

## NOTABLE ACHIEVEMENTS

### WINNER • WOMEN TRANSPORT INNOVATION HACKATHON

Sponsored by UN Women | September 2015

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

### WINNER • SEECS SOCIAL HACKATHON

Sponsored by Telenor | March 2015

- Developed an entry test preparation Android app based on online crowd-sourcing community model.

### RECEPIENT • RECTOR'S APPRECIATION AWARD TO HIGH ACHIEVERS

Sponsored by NUST | 2016

## NOTABLE PROJECTS

### TEXT COMPRESSION USING LEMPEL-ZIV ALGORITHM & SUFFIX TREES

Written in C++ | 600 lines of code | January 2016

- Built Suffix Trees using Ukkonen's online algorithm.
- Using them, the original Lempel-Ziv algorithm was implemented for text compression. The whole operation was thus kept linear in time with respect to the size of input string.
- Compression of a fiction book consisting 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

Written in PHP | 3400+ lines of code | June 2013

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