Ujjwal Pasupulety

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Education

National Institute of Technology Karnataka

Surathkal, Mangalore

2nd Year B. Tech, Information Technology

2015-2019

CGPA: **9.35**/10(*As of May* 2017)

Delhi Public School South

Bangalore

High School, Percentage: **96.8%** [99% in Computer Science]

2013-2015

School Topper in Board Examinations

Bangalore

Delhi Public School South *Secondary School, CGPA: 10/10*

2007-2013

Technical Skills

- o Languages C/C++, Java, Python, HTML/CSS, BASH Script, ChucK
- o Tools LATEX, Git, ProjectPencil, IBM Bluemix, Blender, OpenShot

Relevant Coursework

Data Structures and Algorithms, Digital Design, Computer Architecture, Unix Programming, Real Analysis, Integral and Differential Calculus, Graph Theory, Probability Theory, Operating Systems, Design and Analysis of Algorithms, Computer Communication and Networking, Paradigms of Programming Languages, Computer Graphics, Object Oriented Analysis and Design

Selected Projects

1: Value Flag Length Encoding(VaFLE)

- o Improved on this paper for Run Length Encoding
- o Proposed a set of triples namely Value Flag and Length as opposed to the Value Length Pairs in the existing Modification
- o Provides better data compression than the algorithm proposed in the paper at the same speed as traditional RLE.

2: Open Source Contribution for Network Simulator 3(under review)

- o Ported a Perl script that converted a file written in the Felix Connection Vector format into a format more suitable for reading by tmix-ns using C++.
- o Analyzed perl script code line by line and applied the corresponding C++ constructs for file handling to perform the same task.
- o The perl script was initially used for format conversion in Network Simulator 2 but is now outdated with the coming of Network Simulator 3 which required a new format converter.

3: Blackjack Computer Game

- o A Human versus Computer version of the popular casino game using the OpenGL API
- o Simple OpenGL Image Library(SOIL) for texture mapping of card images onto 2 dimensional surfaces
- o A random number generator was used to generate card values and suites until either the player or computer won.

4: Synthesis of Computer Music using the Chuck programming language

- o Learned the basics behind Computer generated music, i.e., CompuMusic
- o developed musical compositions using ChucK, an object oriented audio programming language.
- o Complete score sheets were created using the inbuilt classes for various instruments and programming techniques like using arrays to store frequency values along with time periods
- o Music can be found here

5: Unix Utility Suite

- o An Alarm Clock, a weather forecast tool and a newsreader
- o Simple GUI made with the Zenity toolkit
- o Shell Scripts plus a Python backend for web scraping.

6: ShopsMart Online Price Aggregator

- o An Android App that scrapes websites such as Amazon and Snapdeal
- o Finds the lowest price of a commodity entered by a user and links to the item's page
- o Integrated jSoup with Android for Webscraping

Achievements & Extra-curriculars

- o Karnataka Common Entrance Test (KCET) Rank: 336
- o Joint Entrance Examination (Mains) All India Rank: 5412
- o National Science Olympiad 2007(SOF)- All India Rank: 398
- o Selected as one among 20 teams to participate in a Make-A-Thon organized by Samsung at National Institute of Technology, Trichy using the ARTIK IoT Platform
- o Won several national level competitions in drawing and painting organized in Kuwait
- o Finalist in the 1st Indian edition of HP Codewars, Competitive Programming Contest held in Bangalore
- Campus Ambassador for Bosch RBEI, NITK. Placed 1st in INFOTSAV Campus Ambassador Meet 2017 for innovative ideas
- o Core Member and Publicity Coordinator of Web Enthusiasts' Club, NITK
- o Junior House Captain in school

Interests

Public Speaking, Creative Writing, Poetry, Drawing, Painting, Blogging, Playing the Keyboard, Quizzing, Video Editing