







## PERSONAL DETAILS

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## EXPERIENCE

Alcatel - Lucent	Summer Intern
Telesonic Networks Ltd.	Developed a piece of software that manages the entire east india region airtel traffic. This software takes the local excel sheet containing the entire logs from the east india region and converts it into a relational dataset that maps phone numbers to card ports, which can then be accessed via a intuitive GUI to access the areas of the problem. Reduced the duration from a month to seconds.
June 2013 - July 2013	



## PROJECTS



**Medusa:** A new efficient JIT implementation for the Python Language focussing on speed; JIT compilation, adaptation & persistant caching methods based on Google's Dart VM. This opensource project was selected for PyCon India 2014 and can be found at <https://github.com/rahul080327/medusa>



**Terminator++:** A fully featured online development platform supporting a C, C++, C# compiler and an online terminal. Impletemneted using basic web technologies such as HTML5, CSS3, JavaScript & HipHop Virtual Machine.



**The V2 Cipher:** Designed and implemented an entirely new hybrid stream cipher specially for networks incorporating very fast data operation, hardware optimised block sizing, heuristics & a very large permutation space resisting brute force attacks. This is also an opensource project and can be found at: <https://github.com/rahul080327/V2>



**Distro - Easy Query Language:** Designed & implemented a completely new distributed cross platform DBMS, which defines its own language standards based on JAVA RMI.



**Search Me:** Redesigned & implemented a new theoretical concept of pre-indexed searching ranking via efficient methods using linear algebra.



**Untitled Multiplatform Game:** Developed the a 3D RPG game on Unreal Engine 3 by developing the maps and adding the AI script using the Unreal Script. This game can be deployed for Xbox 360, PC and iOS. The characters models and the animations were downloaded from opensource sources.



**Animalistic:** A basic machine learning based artifical intelligence application which implements a new  $O(n)$  complexity algorithm to serialize and deserialize binary trees to and fro from the disk. This project has been implemented in C, C++ and Java.

### Other significant projects include:

**iCopy:** A cross platform replacement to the native file handling operations.

**ObjArchiver:** A cross platform file archiving tool that implements its own custom archiving techniques.



## EDUCATION

High School	M.P. Birla F.H.S School, Kolkata (ICSE) - 87%
Secondary School	M.P. Birla F.H.S School, Kolkata (ISC) - 80%
College	VIT University, Vellore (B.Tech CSE) - 8.4 CGPA



## PROFILE



Hi,

I am recent graduate fresh out of VIT University looking for full time employment. I am from Kolkata, India and I am open to moving to any place. I love anything and everything related to computers, especially programming and development. I don't mind getting my hands dirty with back-ends and game engines and I am a very versatile developer. Go further down to see why I am the man you need to hire!



## PUBLICATIONS



### Cost Effective PolyVernam Cipher with Cache Optimizations

Journal Of Theoretical & Applied Sciences (Scopus Indexed)  
ISSN: 1992 - 8645, Vol: 58, No: 3, page numbers: 672 - 677



### An Algorithm to Search for an Algorithm in a Relational Dataset - A Precursur to Generative Programming

Journal Of Theoretical & Applied Sciences (Scopus Indexed)  
ISSN: 1992 - 8645, Vol: 56, No: 24, page numbers: 244 - 251



### A Theoretical Concept for Improving Network Routing using Communication Packets and Intelligent Networks

International Journal of Recent Contributions from Engineering, Science & IT (Google Scholar Indexing)  
ISSN: 2197 - 8581, Vol: 1, No: 2, page numbers: 37 - 39



## ACHIEVEMENTS



Manager at VIT's Cultural Fest Riviera & also organized the first ever simulation of Planning Commission of India, The VIT Planning and Development Summit ([www.vitpds.com](http://www.vitpds.com)). The website was also completely developed by me.



Won the first prize in the annual national aviation and space quiz organized by the aeronotical society of India and ISRO.



Constant Gold Medalist at inter-school sports in various events.



## SKILLS



### Specialities

C/C++, Java, Python  
JavaScript, Dart, Rust,  
Polymer



### Tools / SDK

Qt, NGINX, HAProxy, Apache,  
Facebook's HHVM, Linux Kernel  
Node.js, Chef, Unreal Engine 3



### Knowledge

Mutli-Threaded Dev  
Distributed Dev  
Server Back Ends  
Micro Optimization  
x86 Assembly  
Game Development  
Basic AI programming



### Hobbies

Movies  
Music  
Football  
Table Tennis  
Video games  
Reading  
Systems Engineering