



## EDUCATION

Program	Institution	%/CGPA	Year of completion
M Phil in Theoretical Computer Science	Institute of Mathematical Sciences, Taramani, Chennai	Currently pursuing	2014
M Tech in Computer Science & Engg.	Indian Institute of Technology Madras, Chennai	7.89	2011
B Tech in Computer Science & Engg	National Institute of Technology, Trichy	7.19	2009
XII	National Institute of Open Schooling, New Delhi (NIOS)	78.3%	2005
X	P S Senior Secondary School, Chennai (CBSE)	79.6%	2003

## SCHOLASTIC ACHIEVEMENTS

- Have acquired AIR 129 in Gate 2009 with a gate score of 749 and 99.68 percentile and thereby availing Gate Scholarship with IIT, Madras.
- Have obtained All India 8<sup>th</sup> Rank in the Junior Level in the All India Mathematics Talent Final Test conducted by the Association of Mathematics Teachers of India (AMTI).
- A regular topper in school in one or more subjects.
- Have won numerous awards/prizes in various Mathematics competitions and talent tests.
- Have scored 86.03% and stood amongst the top 500 students in the Tamil Nadu Professional Colleges Entrance Examination (TNPCEE), 2005.
- Have secured a State Rank of 90 in the All India Engineering Entrance Examination (AIEEE), 2005.

## SKILLS

- Operating Systems – Windows, Unix/Linux
- Programming Languages - C, C++, Visual Basic, Core Java, BASH Shell Script
- RDBMS - SQL
- Internet Web Technologies - HTML, ASP, Java Script & VB Script
- Other Tools & Technologies - MS Office

## PROJECTS

- **Thesis Submission for M.Phil at IMSC, Chennai** – (under the guidance of Prof. K Srinivas, IMSC, Chennai) **2013-14**  
(Computation of Class Numbers of Imaginary Number Fields)  
In an algebraic number field, we cannot get unique factorization with algebraic integers. However, unique factorization can be restored with imaginary quantities called ideals. In each algebraic number field, all the ideals can be classified into finite number of classes, called the class number of the algebraic number field. My work is to study and implement this computation of class number of a given algebraic number field and write a report.
- **Project Work at IIT Madras** – (under Prof. Dr.N.S.Narayanaswamy, Professor, IIT Madras) **2010-11**  
(Project on the study of Steiner Trees in Graphs)  
A Steiner tree is shortest inter-connect between a set of vertices, which may be arranged in plane or space. In minimum spanning trees only connection is provided between existing vertices but for Steiner trees new intermediate vertices can be added. For N-vertices a maximum number of N-2 extra points may be added up. This problem is NP complete for chordal graphs, but for efficient algorithms this problem are analysed & implemented for any general graph.

- Final year Project Work at NIT Trichy** – (under Prof. Dr. V. Gopalakrishnan, Professor, NIT, Trichy)  
 (Project on Performance Analysis of Algorithms for Primality Testing, Integer Factorisation and Discrete Logarithms) **Jan- May'09**  
 This program implements algorithms such as Trial Division, Pollard's Rho,  $p-1$ ,  $p+1$ , Elliptic Curve Method and sub-exponential algorithms like Continued Fraction Method, Quadratic Sieve for factoring any given Integer. Number Field Sieve and Shor's quantum algorithm are to be added up later. Rabin Miller's Test, Pepin's test, Proth's Theorem, Lucas Lehmer Riesel for primality testing, Elliptic Curve Primality Proving for general purpose numbers. APRT-CLE and AKS algorithms are to be implemented later depending upon the complexity.  
  
 For discrete logarithms, I implemented Pollard's Rho, Baby Steps-Giant Steps and Pohlig-Hellman Algorithm Index Calculus Method, which has estimated sub-exponential running time is to be added up later and Pollard's Lambda Method is only suitable for distributed computing and has exponential running time. Functions such as GCD and inverse, Modular Exponentiation, Modular Square Root, Euler's Phi function, sum of divisors of a given number are all implemented to be executed separately and independently.  
  
 Then sometimes the factors of the given number are used for the next iteration of the sequences such as the Aliquot Sequence or Home Prime Sequence, where the numbers are being generated continuously until the sequence itself terminates up.

## WORK EXPERIENCE

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- LINUX SYSTEM ADMINISTRATION (As part of teaching assistantship at IIT Madras)** **2009-11**
  - Making use of FAI Software to install some software on linux systems collectively. The work includes monitoring of users, file systems, network connectivity and managing the linux kernel. Sometimes shell scripts are written and placed in crontab files in order to execute certain activities periodically.
- Inplant Industrial Training with M/s.Covansys India Ltd, Chennai.** **Nov-Dec'06**  
 Was a member of the team which did Program on implementation of Aliquot Sequences using Java.
- Inplant Industrial Training with M/s.Infolog Solutions P Ltd, Bangalore.** **June-July'08**  
 Did program on freight forwarding software using visual basic .net

## CO-CURRICULAR ACTIVITIES

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- A Member of team which developed a supermarket software at IIT Madras** **Oct-Nov'09**
  - A software in HTML and PHP to maintain a database of items sold in supermarket and making bills for customers with quantity and price. Each time the stock of items in market is maintained as new goods arrive and are sold. The items should be able to be inserted into database, removed from it or search within it.

## EXTRA-CURRICULAR ACTIVITIES

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- Factorisation of Cunningham Numbers with Department of Computer Sciences, Purdue University, Indiana, USA.**
  - An active member of the team presently factorizing Cunningham Numbers – <http://homes.cerias.purdue.edu/%7Essw/cun/page107>, 108 to 121.
- Interested in Chess and have participated in various Chess Tournaments.
- Was a member of National Service Scheme (NSS) in NIT, Trichy and a member of the team which conducted sports meet for a village Children near Thuvakudi, Trichy.
- Interested in Cricket, football and a keen swimmer.

## OBJECTIVE

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- To utilize my technical and software skills for achieving the target and delivering the best performance in the esteemed organization. I would like to implement my innovative ideas, progressive experience, skills and creativity for accomplishing the projects.