

Robin Zachariah

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Education

- 2010 - present **Bachelor of Technology in Computer Science and Engineering.**
National Institute of Technology Calicut, Kerala, India. CGPA up to 7 semesters - 7.30 on a scale of 10. Expected to complete by May 2014
- 2010 **All India Senior School Certificate Examination.**
The Indian School, Kingdom of Bahrain, 85%
- 2008 **All India Secondary School Examination.**
The Indian School, Kingdom of Bahrain, 85%

Technical Skills

- Languages & Technologies C, C++, PHP, HTML, Scheme, SQL, NASM, git, Drupal, Wordpress
- Authoring & Graphics MS Office, LibreOffice; GIMP, Adobe Photoshop/Flash, Prezi, L^AT_EX
- Tools Wireshark, netsniff-ng, Xplico, tcpdump

Projects

- Title **Android Reverse Engineering** *July 2013 - November 2013*
- Languages & Technologies Development: Java, .smali; Deployment: Android, Dalvik Virtual Machine
- Description During the course of this project, I was involved in static analysis and code injection of the code of Android applications to gain full functionality of apps and find security flaws, bugs, malware etc.
- Title **Dynamic Deadline Extension of BOINC Scheduler** *July 2013 - ongoing*
- Languages & Technologies Development: C++, Python; Deployment: BOINC middleware, Apache, MySQL
- Description Currently, when the scheduler sends a job to the client, the job has a fixed deadline. If the job hasn't been completed and reported to the scheduler by then, the server will generate a new instance of the job. In some cases this is wasteful. A new scheduler algorithm that takes the status of the running project into consideration was proposed.

Title	Virtual Campus Supercomputer	<i>May 2013 - September 2013</i>
Languages & Technologies	Development: C++, Python; Deployment: BOINC middleware, Apache, MySQL	
Description	Successfully set up a high performance computing resource based on the BOINC middleware in the campus, that enabled faculty and researchers at the University to use idle computing power. The existing middleware, scheduler and client software had to be modified to work as a grid within the boundary limits of the organization.	
Title	Secure Messaging Service	<i>October 2012 - November 2012</i>
Languages & Technologies	Development: PHP, HTML, CSS, JavaScript; Deployment: Apache, MySQL	
Description	Secure Messaging Service is an application that allows users to send messages securely through the use of a PIN feature. This project was an individual effort as part of the Web Programming course. I worked on the full project cycle which includes requirements specification, implementation and testing.	
Title	Website for FOSSMeet 2012	<i>November 2011 - February 2012</i>
Languages & Technologies	Development: Drupal, HTML, CSS, PHP; Deployment: Apache, MySQL	
Description	FOSSMeet is the annual FOSS event of National Institute of Technology Calicut. I participated in requirements gathering, system definition and tools selection. I had designed and developed the website which handles the speaker and participant registration and event scheduler. The main challenge faced during this project was to implement the organisers' requirement and update it from remote locations using Drupal.	
Title	note.it	<i>August 2011 - December 2011</i>
Languages & Technologies	Development: HTML, CSS, PHP; Deployment: WAMP, Athena Server (Apache)	
Description	note.it is a portal to share text books, college notes, assignments and reference materials. The goal was to create a maintainable system to provide study materials. I worked on the web development and deployment. My contribution helped to deliver the project on time.	

Internship

Firm	Al Oala Information Technology WLL. TechTran	<i>Manama, Kingdom of Bahrain</i>
Duration	6 months, over various projects.	
Description	As part of my training and internship program, I was involved in the planning and implementation of enterprise networks, VOIP, IPPBX, Biometric Security Systems and Devices for leading multi-national companies. During the course of the internship, I learned to deliver solutions based on the specifications and demands of the clients. I also familiarised myself with network configuration and troubleshooting.	

Seminars

Title **Volunteer Computing** *July 2013*

Description A seminar was presented to introduce the concepts of Volunteer Computing to the campus and to persuade students and faculty to take up the project and provide computational power from idle systems.

Title **BOINC: A System for Public-Resource Computing and Storage** *August 2013*

Description After setting up a Virtual Supercomputer, based on the BOINC middleware, a seminar was presented to researchers to introduce them to BOINC and highlight the advantages of porting their research to BOINC based applications. A session was also taken to introduce application development on BOINC platform.

Title **Optimized Verification for Six Degrees of Separation** *October 2013*

Description As part of a seminar course, I, under the guidance of Ms. Vanitha P S had to research and present an optimized methodology to solve the problem of Six Degrees of Separation, implementing a parallelized version of Dijkstra's Shortest Path Algorithm.

Areas of Interest

- o Computer Networking, Operating Systems
- o Distributed Systems, Parallel Processing
- o Bioinformatics, Data Mining, Computer Security and Cryptography
- o International Relations, Political Science and Economics

Achievements and Activities

- o **Awardee of Scholarship Program for Diaspora Children** - Recipient of the scholarship installed by the Ministry of Overseas Indian Affairs, Government of India.
- o **Arabian Hexagon** - Secured 4th position overall in the international quiz competition conducted in Dubai.
- o **National Level Quizzing** - Finished in top 6 of several quizzes conducted by Institutes of National Importance.
- o **Joint Secretary** - Enquire Quiz Club, National Institute of Technology Calicut, 2011 - 2013.
- o **Senior Executive** - Literary and Debating Club, National Institute of Technology Calicut, 2011 - 2013.

Hobbies and Interests

- o Quizzing
- o Reading
- o Politics
- o Diplomatic Debating
- o Model United Nations
- o Economics

Declaration: The information I have provided is true to the best of my knowledge and belief.

(Last Updated: January 19, 2014)

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