DETAILED RESUME

Ranjit Thomas Abraham, Ph.D.

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Career Objective

Seeking a faculty position in Computer Science and Engineering/ Information Technology which harnesses my extensive experience, diverse skills and capabilities brought from Academia and Industry.

Personal Information

Name:	Ranjit Thomas Abraham
Age and Place of Birth:	58 years (16th Oct 1959), Alleppey, Kerala State, INDIA.
Nationality:	INDIAN
Civil Status:	Married and have 2 daughters aged 26 and 23 years.

EDUCATION

2004-2011	**Ph.D.**: Anna University Coimbatore, Tamil Nadu, INDIA. *Major:* Information and Communication Engineering / Machine Learning *Thesis:* "Effective discretization and feature selection for Medical data mining using Naïve Bayesian Classifier"
1996	**DIM:** Diploma in Management, Indira Gandhi Open University, New Delhi.
1994-1995	**M.Tech**: Cochin University of Science and Technology, Cochin, INDIA. *Major:* Computer and Information Sciences, CGPA - 2.736 (76%). *Thesis:* Software Engineering - "Component oriented development for mature domain-specific software"
1983	**Pre-Ph.D.**: IIT, Delhi, INDIA *Courses:* Semiconductor Electronics I, Semiconductor Electronics II, Solid State Physics and Quantum Theory (12 credits)
1980-1982	**M.Sc**: Kurukshetra University, Kurukshetra, INDIA. *Major:* Physics, First Class 2nd Rank. *Specialization:* Digital Electronics
1977-1980	**B.Sc:** Kerala University, Kerala, INDIA. *Major:* Physics, First Class *Subsidiary Subjects:* Mathematics & Chemistry
1975-1977	**Pre-Degree**: Kerala University, Kerala, INDIA. Courses: Physics, Mathematics and Chemistry, First Class.
1970-1975	**S.S.L.C:** CMS High School Kottayam, Kerala, INDIA (Secondary School Leaving Certificate), First Class

EMPLOYMENT HISTORY

02/2015- till date	**ABIBA Systems Limited**, Banashankari, Bangalore, INDIA

Title: **Consultant-Analytics**

Software implementation of Analytic solutions for Telecom, Public Health, Cable Communication, Insurance and Retail projects.

Work involves understanding business problems, creating Analytic data marts, Modelling, Scoring, Reporting, Technical documentation, Training and Presentations. Tools and Software used include SAS Enterprise Miner, SAS Visual Analytics, Oracle Data warehouse, Tableau and Microsoft Excel, RStudio, PostgreSQL on AWS, Google Translate, and IPython Notebook.

Solutions include Churn prediction, Segmentation [Value and Behaviour], Next best offer, Social network analysis, visualization and inter-relationship between KPI's, Text Analytics and NLP, Feature Engineering and Process Optimization.

08/2011- 09/2014 **Baselious Thomas I Catholicose College of Engineering and Technology**, Koothattukulam, Kerala, INDIA.

Title: **Principal and Professor of Computer Science**

Established the new-generation Engineering college from scratch, establishing 5 branches - Civil, Mechanical, Electrical, Electronics & Communication and Computer Science for Undergraduate Engineering.

Recruitment of faculty and other man-power, established ISO 9001:2008 certification, introduced a uniform pedagogic Academic framework for all branches of Engineering. Provided Empowerment, Student training for Placements and Pedagogy Workshops for faculty. Guided final-year Computer Science students in areas of Database, Data Mining and Web based applications. Was project guide for 2 M.Phil. students in their data mining projects. Managed the Departments of Administration, Procurement and Finance.

09/2009-05/2011 **Amal Jyothi College of Engineering**, Kerala, INDIA.

Title: **Professor (IT) and Director (Centre for Machine Learning)**

Took courses for B.Tech IT & Computer Science students on Web Technologies, Microprocessor Systems and Telecommuting.

Established the Centre for Machine Learning – Xeon based Server with SAS, Weka, R, Python and Tableau and guided final semester undergraduate data mining projects for Computer Science and Information Technology students. Held several workshops and talks on CS and Pedagogy for the faculty and students.

07/2007- 08/2009 **Armia Systems Limited**, Infopark, Cochin, INDIA

Title: **Chief Operating Officer**

Head of the Company Operations and the two Divisions namely Software Technical Support and Software Application Development.

Established best practices and streamlined processes for the Support and Development divisions. Developed a Quality Matrix and introduced Agile methodology for the Software development team. Introduced Framework based software development for PHP based projects (to reduce security vulnerabilities and to ensure uniform coding standards). Implemented the Information Security Policy that was rigorously followed by the 24x7 Technical Support Team enabling improved periodic monitoring and evaluation. Doubled the company revenue and manpower (78 against 43) during my tenure.

01/2007-06/2007 **Ejyothi Private Limited**, Cochin, INDIA

Title: **Chief Technology Officer**

Prepared the Project Development Methodology as part of strategic planning for US Federal Government outsourced IT projects (6 phases - Initiation, Inception, Elaboration, Construction, Transition and Support). Developed and implemented the Technical Recruitment Process for placing candidates for CGI, USA and was able to establish Ejyothi as one of its preferred vendors.

11/2001-12/2006 **Toc H Institute of Science & Technology,** Kerala, INDIA (4 years)
Federal Institute of Science & Technology, Kerala, INDIA (1 year)
Amal Jyothi College of Engineering, Kerala, INDIA (1 year)
Title: **Professor and Head (Departments of CSE and IT)**

Founder Head and Professor of the Departments for Computer Science & Engineering and Information Technology.

Managed the smooth functioning of the Departments in the above colleges. Recruited Faculty and Laboratory staff and established the various Computer Labs with client-server configurations using Linux / Windows, Database software such as Oracle, and Programming language of GNU C as per the University syllabi for B.Tech degree programme.

Took various undergraduate courses including Database Management Systems, Object Oriented Programming, Software Engineering, Data Structures and Algorithms, Operating Systems, Microprocessor Systems, C Programming Lab and Relational Database Management Lab.

Guided several B.Tech students in their final semester projects that include Database applications, Web technology using Tomcat and Mobile applications using J2ME.

01/2001-07/2001   **Cochin University of Science & Technology,** Cochin, INDIA
Title: **Guest Lecturer**

Taught the courses Software Quality Management and Communication Networks for M.Tech Computer Science/ Software Engineering students. Guided a MBA (Internet for Business) and several MCA (WEB) student projects.

03/2000–06/2000   **EhealthDirect Inc**, Boston, USA
SETU Software Consultants Ltd, Pune, INDIA.
Title: **Software Architect**

Consultant Application Architect in the 4-member team for recommending a suitable n-tier transactional distributed architecture for a $64 million VC funded project for the automation of Health Insurance Claims adjudication.

The project based on the suggested architecture included components using Servlets, JSP's, Java Beans, EJB, WebLogic Server 5.1, tuxedo and Oracle. Provided extensive training on Enterprise Java Beans (EJB) architecture to the offshore development team of SETU Software Consultants at Pune. Provided consultancy on the implementation details for the development team at Pune and Boston. The Project was successfully implemented by the Company.

02/98 -12/99   **City Bank,** 111 Wall Street, NY, USA
Title: **Senior Oracle DBA**

Implemented the following - (a) Entire Database design, and administration relating to Y2K testing. Migration of Oracle 7.3.3 database on SUN E10000 to an Oracle 8.0.4 on NT. (b) Architected & implemented the three-tiered (JAVA / EJB / Oracle 8i) automated testing environment ("iTestDirect") designed to test 'CitiDirect', Citicorp's Enterprise level Corporation-to-Corporation direct online banking system. (c) Developed the "Defect Tracking" package, a web-based application that utilizes Oracle Application Server 4.0.8, PL/SQL and Oracle 8i.

10/1997-01/1998   **St. John's University,** Jamaica, NY, USA
Title: **Oracle DBA**

Successfully migrated 80 GB of COBOL legacy data pertaining to Student financial aid on a Honeywell mainframe to a 7.3.4 Oracle database on a SUN 3000 machine. Carried out the Project plan, analysis, design, data modelling and migration of data.

06/1985-09/1997   **Naval Physical & Oceanographic Laboratory**, Cochin, INDIA &
DRDL, Hyderabad, INDIA.
Integrated Test Range, Balasore, INDIA.
Title: Scientist 'D'

Worked directly under former Indian President Late Dr. A.P.J Abdul Kalam (DRDL - 1985) as Defense scientist and was deputed for advanced training on Electro-optical tracking systems in the US. Prepared the layout for the Range Instrumentation for the Integrated Test Range (ITR) at Balasore, Orissa. Carried out training, installation, configuration and maintenance of the Integrated Electro-Optical Tracking systems, Tracking Telescope systems and Data reduction systems used for tracking airborne targets.

At NPOL, was responsible for the development of the Submarine post-processing software development in C (design created by the Shaler-Mellor design tool), and the entire software systems documentation (as per DoD standards) for the Submarine Sonar under-water project "Panchendriya".
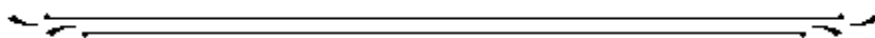
Computer Skills

Programming Languages:	R, Python, C, C++, Java, PHP, SQL, PL/SQL
Operating Systems:	Windows, Solaris,HP-UX, LINUX
Development Tools:	SAS Enterprise Miner, SAS Visual Analytics, OpenRefine, RapidMiner, WEKA, R-Studio, Anaconda Spyder, IPython Notebooks, Tableau, Oracle DBA & Oracle developer tools, WAMP & LAMP, J2EE, EJB.
Data Bases:	Oracle 7.x, 8.x, 11g, MySQL, PostgreSQL.
Office Automation:	Microsoft Office & Project, StarOffice
CASE Tools:	ERWin/ERX, Shaler-Mellor, Rational Rose UML

Research Interests

Data Science / Machine Learning:	Feature Engineering, Algorithm Optimization
Pedagogy:	Undergraduate Engineering, Computer Science and Information Technology

Awards and Recognitions

- Prof. Amit K. Pujari Best Paper Award for 2007 for the paper *"Medical datamining with a new algorithm for Feature Selection and Naïve Bayesian classifier"*, 10th International Conference on Information Technology (IEEE- ICIT 2007).
- Best Paper award for the paper "*A Comparative study of Discretization and Feature Selection Methods for Medical Data Mining Using Naïve Bayesian Classifier*" at the Indian Conference on Computational Intelligence & Information Security (ICCIIS 2007).
- Mentor for Inter-Science Research Network (IRNet) (since 2011) - a professional forum to promote interdisciplinary research among professionals, scholars and researchers.
- Associate Editor of the International Journal of Computer Science and Electrical Engineering (IJCSEE; ISSN No.:2315-4209) and Editorial member for the 'Undergraduate Academic Research Journal' (URJA).
- Paper Reviewer for the prestigious IEEE Transactions on Knowledge and Data Engineering (TKDE 2010, 2012, 2013), International Journal of Pattern Recognition and Artificial Intelligence (IJPRAI, 2012, 2013), International Journal of Educational Research and Development (IJERD, 2013). Paper Reviewer for the IEEE sponsored International Conference on Advances in Recent Technologies in Communication and Computing (ARTCom 2009, 2012).
- Life member of the Indian Society of Technical Education (ISTE), Senior Member of the Association of Computer Electronics and Electrical Engineers (ACEEE), Member of the International Association of Engineers (IAENG).

Annexure A

Publications

Journal Papers

- *"Suitability and Adoption issues of Cloud Computing for Entrepreners",* Ranjit Abraham and Sarath Chandar Rao Sanku, International Journal of Engineering Research & Technology (IJERT), ISSN: 2278-0181, Vol. 3 Issue 4, pp. 659-664, April-2014.
- *"A result-oriented perspective towards enhancing student learning outcomes in Indian private engineering colleges", Dr. Sanku Sarath Chandar Rao and Dr. Ranjit Abraham, International Journal of Innovation, Management and Technology (IJIMT) vol. 3, no. 2, pp. 95-100, 2012.*
- *"Effective Discretization and Feature Selection Using Naïve Bayesian Classifier For Medical Datamining",* Ranjit Abraham, Jay B. Simha and S.SitharamaIyengar, International Journal of Computer Intelligence Research (IJCIR), Vol 5, No2, pp. 116-129, 2009.
- *"System Model for Knowledge Extraction from Sociological Data",* Ranjit Abraham and S. Babu Sundar, South Asian Journal of Socio-political Studies (SAJOSPS), Vol. 5, No. 1, pp 126-129, 2004.

Conference Papers

- *"A Study of Indian Women in Top Information Technology professions and Suggestions towards Competitiveness and Self-Improvement",* Anjali Miriam Dey, Ranjit Abraham, Sarath Chandar Rao Sanku, Annual Conference on Management and Social Sciences (ACMSS), Bangkok, Thailand, 16-18 April 2003.
- *"Fostering freshman Engineering students in private colleges towards a result-oriented future - An Indian Perspective",* Ranjit Abraham, Sanku SarathChandar Rao and Subhash A. Punnoose, International Conference on Education and Management Innovation (ICEMI), Singapore, Feb 26-28, 2012.
- *"A Study towards Pedagogic Renovation and Rejuvenation for Private Engineering Colleges in India",* Subhash A. Punnoose, Ranjit Abraham and Jaimol Thomas, IEEE-AICERA-2012.
- *"Dimensionality Reduction through Bagged Feature Selector for Medical Data mining",* Ranjit Abraham and Jay B. Simha, Journal of Science, Technology and Management, 2010.
- *"Predictive Modeling For Intrusion Detection With A Simple Hybrid Feature Selector",* Ranjit Abraham and Jay B. Simha (2010 International Conference on Advanced Computing and Communication (ICACC-2010), pp 45-55, India.
- *"Medical datamining with a new algorithm for Feature Selection and Naïve Bayesian classifier",* Ranjit Abraham, Jay B. Simha and S.S. Iyengar, 10th International Conference on Information Technology (IEEE- ICIT), pp 44-49, 2007.
- *"An effective and simple feature selection algorithm for Medical data mining using Naïve Bayesian Classifier",* Ranjit Abraham, Jay B. Simha and S.S. Iyengar, ICDMKE, London, England, 2007.
- *"Medical data mining with probabilistic classifiers",* Ranjit Abraham, Jay B. Simha and S.S. Iyengar, ICCSDE, London, England, 2007.

- *"A Comparative study of Discretization and Feature Selection Methods for Medical Data mining Using Naïve Bayesian Classifier"* Ranjit Abraham, Jay B. Simha and S.S. Iyengar, Indian Conference on Computational Intelligence & Information Security (ICCIISS 2007), pp 196-201.
- *"A Comparative Analysis of Discretization Methods for Medical Data mining with Naïve Bayesian Classifier"*, Ranjit Abraham, Jay B. Simha and S.S. Iyengar, 9th International Conference on Information Technology (IEEE-ICIT), pp 235-236, 2006
- *"Using Probabilistic Classifiers for Medical Data mining"*, Ranjit Abraham, Simha J.B. and Iyengar S.S.,Working paper, Department of Computer Science, Louisiana State University, Baton Rouge, USA, 2006.
- *"Modified Organizational framework for Mature Domain-Specific Software Applications"*, Ranjit Abraham and Poulose Jacob, CSI Southern Regional Convention, 1995.
- *"A Software Component Design Representation for Object Oriented Strategy"*, Ranjit Abraham and S. Ananthanarayanan, CSI Southern Regional Convention, 1995.

Book Published

"C Programming Simplified" published in 2003 for first semester undergraduate Engineering students.

Annexure B

Key Talks and Special Trainings

Technical Talks/ Workshops

- "Taming data with data mining" - (2-day workshop for faculty and post-graduate students - December 2014 at Adi Shankara Institute of Science and Technology, Kerala, INDIA)
- "Machine Learning Simplified" (Empowering Engineering Students –June 2014 at Federal Institute of Technology, Kerala, INDIA)
- "Practical Machine Learning – from data to knowledge" (Key address for the International Conference on Computer Science & Medical Engineering, 2012 held at Cochin, Kerala, INDIA)
- "Teaching Methodology- A new shift in Paradigm" (Faculty Development Program, 2010, Amal Jyothi College of Engineering, Kerala, INDIA)
- "Software Project Management and Agile Methodology" (AICTE sponsored Staff Development Programme on "Best Practices in Software", 2009, Amal Jyothi College of Engineering, Kerala, INDIA)
- "E-Manufacturing – 21st Century automation" (Continuing Education Programme course by DRDO, 2006, Naval Physical and Oceanographic Laboratory, Cochin, INDIA)
- "Leveraging Information Technology for Disaster Mitigation" (Institute of Marine Engineers, 2005, Bolgatty Convention Centre, Cochin, INDIA).

Few other Lectures delivered at various colleges - *"The Future of Computing", "Mobile Agents", "Quantum Computing – the new Frontier","Perceptions and Tips for Teaching Computer Science & Information Technology", "Computing for Tomorrow" and "Bridging the gap between Academics and Industry".*

SPECIAL TRAININGS

- Training in the Operation & Maintenance of Electro-Optical Tracking Systems and Data Reduction Systems, Contraves Goerz Corporation, Pittsburgh, USA (9th April 1985 to 12th April 1986).

- Training on the Theory & Operations of Thermal Imaging Systems by GEC AVIONICS, Pittsburgh, USA (23rd June 1986 to 27th June 1986)

- Technical Training on Operation & Maintenance of Photo-Sonics High Speed Instrumentation Camera's, Burbank, USA (February-March 1987)