CURRICULUM VITAE

Joe Cheri Ross
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Career Objective:

To be one of the researchers who can contribute much to computer science research, thus streaming the growth of industry to the development of society. To motivate the society to reach the summit of self realization and technical know how.

Publications:

Object serialization support for object oriented java processors
Ross, J.C.; Chandran, P.;
Information Technology, 2008. ITSim 2008. International Symposium on
Volume 3, 26-28 Aug. 2008 Page(s):1 - 6
Digital Object Identifier 10.1109/ITSIM.2008.4632055

Scale-Beat Tree Organization for Efficient MIDI Retrieval Mechanism
Joe Cheri Ross, John Samuel
International conference on Advanced Computation and Communication 2010
Amal Jyothi College of Engineering. Kanjirapally,
4-5 May 2010

Hierarchical Clustering of Music Database based on HMM and Markov Chain for Search Efficiency
Joe Cheri Ross, John Samuel
CMMR-FRSM 2011 9-12 March, 2011. Utkal University, Bhubaneswar Orissa India.
(selected for post-conference proceedings in Springer LNCS)

Educational Information:

Research Scholar (IIT Bombay- 2nd semester) :

Working on computational models for Hindustani music. Currently working on phrase analysis and melodic similarity measures.

Research interests:

Music information retrieval, Music ontology

Institution	Course	Year	Board/University	Percentage/ CGPA
Holy Cross High School, Thellakom	SSLC	2000	Kerala State Board	90.3
Technical Higher Secondary School(IHRD)	+2	2002	Kerala State Board	84.5
Amal Jyothi College of Engg:, Kanjirapally, Kerala	B-Tech(CSE)	2006	Mahatma Gandhi University	80.7
National Institute of Technology, Calicut, Kerala	M-Tech CSE Info Security	2008	National Institute of Technology, Calicut	8.63

Area of Interest

I have an interest in music and an amateur keyboard player. I am very much interested in enhancing music technology and exploring machine learning and algorithms for maneuvering music technology.

My other interests include distributed computing technologies and microprocessor technologies. I have got a general idea about middleware technologies, semantic web and Linux kernel programming.

Technical Knowledge:

Programming Languages	: Familiar with C, Java, Borland Kylix, Visual Basic, C++, Perl, Python
Technologies/packages	: JAXB, Velocity, QT 4, multithreaded programming, C++ boost libraries
Web technologies	: Perl cgi, Java script, jQuery
	Worked with Shell scripts, Make utility(Makefile)

Courses done in research:

Foundations of machine learning, Artificial Intelligence, Natural language processing.

Courses done in M-Tech:

Computer Architecture, Advanced compiler design, Distributed computing, Cryptography, Formal models in secure computing, Network security, Fuzzy set theory, Operating system design.

Main Project:((B-Tech)

JCodeBee:

Language: Java

This project generates stored procedures corresponding to an XML file which specifies the database structure (Table, relations, keys). This XML file follows the specification of a defined XSD(XML Schema Definition). These stored procedures are also exposed as Webservices.

Mini Project(M-Tech)

1. Semantic web and application of fuzzy for enhancing it's performance.
2. Implementation of certain compiler optimization techniques in Java

Main Project(M-Tech)- Internship at Intel

- Conducted study on object oriented java processor and conducted a study on possibilities of embedding object serialization support within the java processor. Came up with an idea which was presented in an international conference.

- Implemented a module for microcode path coverage tool in C++. Worked with QT4 and KDChart library. Made a dialog box for monitoring the status of server(microcode repository) connections and processes and a graph is drawn to display the statistics.

- Worked on a tool which generates machine instructions to validate processors and implemented some modules in C++. This tool aims at validating Uncore and core-uncore interactions and tries to cover the whole processor. Initially I am trying to make a build script for integrating the tool. Worked with some regression scripts for the tool.

Industrial Experience

Worked with processor validation tools at Intel from July 2008 to July 2011

Major Projects Worked on:

1. **Regression Scheduler**
   Designed environment dependent algorithms & implemented a scheduler for credit based scheduling of validation regressions in batch servers. This project also involved development of GUI in Perl-Tk for providing an user interface to scheduler.

2. **Configuration based coverage**
   This implementation targeted at getting coverage of configuration and other information mined from validation logs. This project helped in analyzing parameters randomized by constrains solvers and uncovered parameter values withiin the allowable domain. This tool suite identified holes in diverse validation sub-environments.

3. **Java based GUI for micro arch debugger**
   Developed a GUI for tracking the events during RTL simulation with the aid of micro architectural block diagrams. The GUI displays status of each block after simulation, parsing logs from debugger.

Achievements:

- Idea on bluetooth based adhoc network got selected as one among the best 5 in Intel India “ideas for business” competition.
- Did internship with Intel and got absorbed
- Recognized with Departmental Award twice at Intel.
- **Qualified in GATE 2006 with percentile 96.3 with Rank 818**
- Qualified GATE 2005 with percentile 90.29
- **Passed IIIrd grade Music Theory Examination scoring 97% marks conducted by London School of Music**
- Participated in Technical Fests and got prizes in paper presentation and marketing competitions
- Participated in elocution competitions conducted by many organizations including YMCA, Junior Chamber and won prizes

- Co-ordinator of Sci-Excite which is a south India level technical exhibition conducted as a part of Azure'05 Technical & Cultural fest held in our college(B-Tech).
- Participated in state level School Science Exhibition and science seminar
- Participated in various cultural programmes at school and college level
- Awarded 'GEM of AJCE' from the college where I did my B-Tech

Seminars Attended:

- Conducted seminar on Linux system call implementation in FOSS@NITC in 2007
- Embedded System workshop in NIT Calicut in 2003
- FOSS@NITC open source workshop in NIT Calicut in 2006
- Workshop on Algorithms for Data streams in IIT Kanpur, December 2006.

My Hobbies:

Listening to and playing music.

I hereby declare that the information provided is true to the best of my knowledge

Joe Cheri Ross