

Eran Chinthaka

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Objective

Research oriented career in distributed computing and development of applications for next generation Internet, Web Services, orchestration, workflows, and grids.

EDUCATION

- **PhD Student**, Spring 2007 – Present, [Indiana University](http://www.indiana.edu), USA.
Minor: Artificial Intelligence. Advisor : [Professor Dennis Gannon](http://www.indiana.edu/~denniscg)
- **MSc in Computer Science**, Fall 2008 (Expected), [Indiana University](http://www.indiana.edu), USA. (GPA 4.0/4.0)

Subjects

Web Mining	Spring '07	A+
Algorithms Design and Analysis	Spring '07	A
Distributed Systems	Spring '07	A
Elements of Artificial Intelligence	Fall '07	A
Scientific Computing	Fall '07	A
Theory of Computing	Spring '08	Pending
Knowledge Based Computing	Spring '08	Pending
Computer Architecture	Spring '08	Pending

- **BSc (Engineering) – Hons**, Spring 2003, [University of Moratuwa](http://www.moratuwa.lanka.lk), Sri Lanka. (First class with GPA 3.86/4.0)

RESEARCH EXPERIENCE

- **Workflows in Grids and Scientific Computing** – I am investigating on creating a uniform environment within the existing [Linked Environments for Atmospheric Discovery \(LEAD\)](#) to plug-in various workflow implementations.
- **LEAD-in-a-Box** – I am working on to make the existing [Linked Environments for Atmospheric Discovery \(LEAD\)](#) deployable in to a single high-end computer. This will enable various other scientific environments like chemistry, oceanology, etc., fields to exploit the capabilities of workflows, Web services and portal environments. Scientists will be able to create workflows and run them on the fly all within a single box, without worrying about the internal complexities of scientific computing environments.
- **Apache Axis2 Project** - I am a founding member of [Apache Software Foundation](http://www.apache.org)'s next generation Web services engine, [Axis2](http://axis.apache.org). This was designed and implemented ground-up supporting lots of WS-* specifications and also making one of the feature-rich, high-performing Web services engine.
- **Apache AXIOM** – I am a founding member of XML Object model based on XML parsing. [Axiom](http://axiom.apache.org) is the underlying XML object model of Axis2

project and provides capabilities like lazy and deferred building of object model without compromising performance or memory.

AFFILIATIONS

- **Apache Software Foundation (ASF)** - Member of [ASF](#), Member –[Project management committee](#) of ASF Web services project, Active committer since 2003.
- **WSDL 2.0 Working Group** – Member of [W3C Web services description working group](#).
 - Implemented [WSDL 2.0](#) completely in Apache Axis2 and also was responsible for making Axis2 pass all the inter-operability tests of the specification.
 - Participated in inter-operability workshops held in Cannon, France in 2006.
- **WS-Addressing Working Group** – Member of [W3C Web services Addressing working group](#).
 - Implemented WS-Addressing submission and final specifications and was also responsible for making Axis2 pass all the inter-operability tests of the specification.

AWARDS & SCHOLARSHIPS

- Fulbright Scholarship Awards in 2006
- BCS Merit Award for undergraduate final year project “Visual Modeling Tool for BPEL4WS”

WORK EXPERIENCE

- **January 2007 – Present** : Research Assistant of [The Extreme! Computing Lab](#) in Computer [Science Department](#), Indiana University. Working with Professor Dennis Gannon and Professor Beth Plale
- **August 2004 – Present**. Active committer and one of the key contributors in Apache [Axis2](#), [Axiom](#) (Pull based XML object model), [XMLSchema](#), [Woden](#) (WSDL 2.0 Object Model), [Neethi](#) (WS-Policy implementation), [Synapse](#) (Mediation Framework).
- **August 2005 – December 2006** : Senior Software Engineer at [WSO2](#) Inc. Lead the development of [WSAS](#) (Web services application server) and also was the initial release manager.
- **August 2004 – August 2005** – Research Engineer in [Lanka Software Foundation](#) working on Apache Web services project with a research scholarship from [SIDA](#).
- **May 2003 – August 2005** – Technical Lead at [Eurocenter DDC](#), Sri Lanka. Worked on projects related to business process automation, telecommunication network managements, and mobile portals.
- **February 2002 – June 2002** – Student internship in [hSenid Software](#), Sri Lanka. Worked on mobile SMS related project and also implemented a portal enabling numerous SMS applications.

UNIVERSITY PROJECTS

- Visual modeling tool for BPEL4WS as the undergraduate final year project.
- Web mining class project - A tool to predict similar blog based on nearest neighbors.
- Design and Analysis of Algorithms project - An algorithm and an implementation of large integer multiplication routine
- Distributed Systems project - Implementation of a peer-to-peer system using bit-torrent protocol.

- Elements of AI projects – Implementation of 8-puzzle and 4-connect problems using neural networks, case-based reasoning and adversarial search algorithms

**CONFERENCES
AND
PUBLICATIONS**

Conferences

- [ApacheCon Europe 2005](#)(18-22 July 2005), Stuttgart, Germany.
Session : [Developing Applications and Extensions of Axis2](#)
- [ApacheCon US 2005](#) (10-14 December 2005) San Diego, CA.
Session : [Why Axis2: The Future of Web Services](#)
- [JAX 2006](#) (8-12 May 2006), Wiesbaden, Germany.
Sessions : [Why Axis2 : The Future of Web services](#)
[Apache Synapse and the Open Service Bus](#)
- [ApacheCon Europe 2006](#) (26-30 June 2006), Dublin, Ireland.
Session : [REST in peace with Web Services](#)
- [Colorado Software Summit 2006](#) (22 – 27 October, 2006). Colorado, USA.
Sessions : [Why Axis2: The Future of Web Services](#)
[Introducing AXIOM — Pull based XML Object Model Optimized for SOAP Processing](#)

Publications

- Axis2, Middleware for Next Generation Web Services. [ICWS 2006](#): 833-840

Articles

- [Get the most out of XML processing with AXIOM](#)
- [Enable REST with Web services, Part 1: REST and Web services in WSDL 2.0](#) - IBM Developerworks
- [Web services and Axis2 architecture](#)
- [Develop asynchronous Web services with Axis2](#)
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(See <http://eran.chinthaka.googlepages.com/publishedarticles> for a complete list of articles published)

Podcasts

- [Asynchronous Web Services Invocations](#)
- [SOAP Optimizations](#)
- [WSDL 2.0 Integration in WSO2 WSAS](#)

REFERENCES

- [Professor Dennis Gannon](#), (gannon@cs.indiana.edu)
Professor Computer Science Department, School of Informatics, at Indiana University.
- [Professor Beth Plale](#), (plale@cs.indiana.edu)
*Associate Dean of Research, School of Informatics
Director, [Center for Data and Search Informatics \(DSI\)](#) of the [Informatics Research Institute](#)
Associate Professor Computer Science Department, School of Informatics, at Indiana University.*
- Dr. Sanjiva Weerawarana, (sanjiva@wso2.com)
Founder, CTO, Chairman WSO2 Inc.