

# Hasini Gunasinghe

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## Education

- **Ph.D in Computer Science**  
*Purdue University* *Aug 2013 – present*  
*West Lafayette, IN, USA*
  - **B.Sc in Computer Science and Engineering** - First Class Honors  
*University of Moratuwa* *2006 – 2010*  
*Moratuwa, Sri Lanka*
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## Research Interests

- I am interested in the areas of information security and data mining.
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## Professional Experience

- **Purdue University** *Aug 2013 – present*
  - *Graduate Teaching Assistant*  
Coordinated five project teams in Software Engineering (CS 307).
  - *Graduate Research Assistant*  
Designed and developed a privacy preserving biometrics based authentication protocol and a pseudonymous identity management protocol to prevent linkability in the digital identity ecosystem .
- **WSO2 Inc.** *Sept 2010 – May 2013*  
*Software Engineer*
  - Designed and developed standardized identity provisioning feature in WSO2 Identity Server with support for multi-tenancy and OAuth based authentication.
  - Led WSO2 Charon project which implements the open standard - SCIM (System for Cross-domain Identity Management).
  - Participated in the first SCIM interoperability event at IETF 83rd meeting representing WSO2.
  - Implemented performance improvements for XACML PEP-PDP communication using Thrift in WSO2 Identity Server.
  - Implemented multi-tenancy support for LDAP based user store in WSO2 Cloud Platform.
  - Participated in short term client engagements in USA and Germany in which I have conducted training and developed proof of concepts around WSO2 products.
  - Speaker in WSO2Con – 2013 which was held in London, UK.
  - Managed three releases of WSO2 Identity Server (3.2.0, 3.2.3 and 4.0.0) as the release manager.
- **Wavenet International Pvt Ltd** *Oct 2008 – March 2009*  
*Software Engineering Intern*
  - Designed and developed a SIP based soft phone from the root level with support for both audio and video streams which was a R&D project carried out by a team of two interns.

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## Publications

- **Refereed conference papers**

- H. Gunasinghe, E. Bertino, “Privacy Preserving Biometrics-Based and User Centric Authentication Protocol”, Network and System Security - 8th International Conference, NSS 2014, Xi’an, China, Oct 2014.
- Dilshan Amadoru, Hasini Gunasinghe, Chamini Hasanga, Visakha Nanayakkara, Srinath Perera. Wihidum : On the Performance of Two Topologies for a Distributed Broker Hierarchy of Publish-Subscribe Middleware. In Proceedings of the 2nd Computer Science & Engineering Society Conference (CS&ES '10). Sri Lanka. ISBN-978-955-9027-37-9

- **Peer reviewed technical articles** (*available at <http://wso2.com/library>*)

- Fine-Grained Authorization to RESTful Services with XACML
- Security Challenges in the Cloud
- How WSO2 StratosLive meets Security Challenges in Cloud

- **Webinars**

- Standardizing Identity Provisioning with SCIM
  - Security Patterns with the WSO2 Enterprise Service Bus
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## Awards and Merits

- Best Paper Award in the 8th International Conference on Network and Systems Security 2014
  - Outstanding Contributor Award, WSO2 Inc. 2012
  - Outstanding Contributor Award, WSO2 Inc. 2011
  - Placement in Dean’s List for academic excellence, University of Moratuwa 2006 - 2010
  - Second Runner Up in the Software Design Category of Imagine Cup-2008, Microsoft, Sri Lanka 2008
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## Skills

- **Programming Languages**

Java, C, C++, Python, R

- **Software Development Tools and Methodologies**

Git, Subversion, Maven, Ant, SCRUM

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## Other Activities

- Student Member, CERIAS 2013 - present
- Committer, initial SCIM Working Group (<http://code.google.com/p/scim/people/list>) 2012
- Volunteered Visiting Instructor, University of Moratuwa. 2009–2010
- Volunteered for IT services in 10th South Asian Games which was held in Colombo. 2006
- Member, Gavel Club (Affiliate of Toastmasters International) 2006–2007