# SAMINDA ABEYRUWAN

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## QUALIFICATIONS PROFILE

Technically knowledgeable emerging professional prepared to leverage related expertise and skills to contribute to software engineering projects.

- Experience with artificial intelligence, autonomous learning, machine learning, and reinforcement learning.
- Able to develop embedded software for monitoring real-time human and robotic behavior and activities.
- Perform testing and debugging to identify, correct, and eliminate issues and errors prior to software production.
- Collaborate effectively with colleagues and provide leadership to team members to maintain alignment with deadlines and project requirements.
- C/C++, Python, MATLAB, CUDA, Java, Hadoop , Energia, Eclipse IDE, Make, Maven, Git, Linux, Mac OS X.

## EDUCATION AND CREDENTIALS

**PhD in Computer Science** (2015); GPA 3.98; *Dissertation: Learnable Knowledge for Autonomous Agents*
**Master of Science in Computer Science** (2010); GPA 4.0; *Thesis: PrOntoLearn: Unsupervised Lexico-Semantic Ontology Generation using Probabilistic Methods*
UNIVERSITY OF MIAMI, Coral Gables, FL

**Bachelor of Science (Honors) in Electrical Engineering** (2004); GPA 3.79, Ranked #1 of 51
UNIVERSITY OF MORATUWA, Sri Lanka

**Affiliations: Apache Software Foundation** (Apache Web Services Project Committer; Project Management Committee (PMC) Member); **IEEE; AAAI**

**Publications/Presentations:** List available upon request

## EXPERIENCE HIGHLIGHTS

**Software Engineer** | CISCO SYSTEMS, INC., San Jose, CA 8/2015 – Present

Serve as Software Development Engineer for scalable and distributed software for network controller using C++, and Engineer for Cisco Application Policy Infrastructure Controller (Cisco APIC).

**Research Assistant** | UNIVERSITY OF MIAMI, Coral Gables, FL 8/2010 – 8/2015

Performed software engineering/development for various projects. Earned Outstanding Research Assistant award.

- Bio Assay Ontology: Designed software tools to mitigate knowledge acquisition bottleneck; implemented in C++ and Java. Wrote parallel algorithms for near-real-time reasoning on OWL 2 ontologies with large assertional boxes; implemented using MapReduce programming model. Used Description Logic and Bayesian networks.
- RegenBase Ontology: Extracted knowledge from 1500 technical papers using text mining methods; developed ontologies to link data and results from studies implemented using C++ and OpenNLP. Developed various Protégé plugins to expedite knowledge acquisition and assay annotations using Java.
- RoboCup Soccer: Used RoboCup Standard Platform and 3D Soccer Simulation League as test environments to research real-time reasoning and build autonomous agents with C++. Represented predictive knowledge in role assignments using general value functions and C++. Won multiple awards: 1st in Europe Open 2011; 2nd in World Cup; 2nd Asian Open 2012; 2nd in World Cup; 2nd in U.S. Open; 3rd in Asian Open 2014; 1st in U.S. Open 2015.
- Embedded Systems: Developed unification methodologies to identify abnormal events, methods to learn and predict, and software tools to realize functions on embedded devices.

**Teaching Assistant** | UNIVERSITY OF MIAMI, Coral Gables, FL 8/2008 – 5/2010

Taught computer science courses; graded student performance. Recognized with Best TA award.

**Senior Software Engineer/Technical Lead** | WSO2, INC., Sri Lanka 8/2005 – 8/2008

Developed middleware applications using SOA, Apache Web Services, and Java. Managed team integrating Web Services Application Server with Apache Web Services. Developed enterprise service bus with Apache Synapse. Conducted research and developed applications using OSGi technologies.