

Visiting Research Scholar

Feb. 2013 - Dec. 2013

CSAIL, MIT

USA

- I worked with [COMMIT](#) group at MIT, lead by Prof. Saman Amarasinghe. Specifically, I developed distributed StreamJIT, a compiler and runtime system for high performance stream processing, during this period.

Software/Firmware Engineer

Apr. 2009 - Jul. 2011

EXCEL TECHNOLOGY LANKA (PVT) LTD

Sri Lanka

- Excel Technology Lanka (Pvt) Ltd is a member company of [GSI Group Inc \(USA\)](#) groups of companies. Specifically, I designed and developed the laser marking (industrial automation) CAD software and hardware.

Engineering Intern

Nov. 2007 - Apr. 2008

DIALOG BROADBAND NETWORKS (PVT) LTD

Sri Lanka

- During this period, I obtained training and practical experience with sufficient capacity in data communication, Metro Ethernet, networking, network planning, ISP, WiMax, hosted PBX-VOIP and microwave transmission.

Teaching Experience

Teaching Assistant

Aug. 2014 - Dec. 2014

SCHOOL OF COMPUTING, NUS

Singapore

- My role was to tutor on Introduction to Operating Systems (CS2106) to an undergraduate class of 58 students.

Visiting Instructor

Jun. 2008 - Apr. 2009

FACULTY OF ENGINEERING, UNIVERSITY OF MORATUWA

Sri Lanka

- I worked as a visiting instructor for two subjects: Engineering Design (EN195) and Engineering Skill Development (EN196).

Mentor Experience

Implementing Dynamic Data Rate in StreamJIT

Aug 2016 - Dec. 2017

FINAL YEAR PROJECT, SCHOOL OF COMPUTING, NATIONAL UNIVERSITY OF SINGAPORE

Singapore

Implementation of LTE-A Uplink System and Advanced Receiver in StreamJIT

May 2014 - Apr. 2015

FINAL YEAR PROJECT, FACULTY OF ENGINEERING, UNIVERSITY OF MORATUWA

Sri Lanka

Software Defined Radio Implementation of DVB-T2 Receiver using StreamJIT

Jun. 2015 - Apr. 2016

FINAL YEAR PROJECT, FACULTY OF ENGINEERING, UNIVERSITY OF MORATUWA

Sri Lanka

Honors & Awards

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|-----------|---|-----------|
| 2011 | SMART Graduate Fellowship. A fully funded fellowship awarded by Singapore-MIT Alliance (SMART) to pursue NUS-MIT collaborative PhD. | Singapore |
| 2006 | Mahapola Scholarship. Awarded by Mahinda Rajapaksa, the then president of Sri Lanka. | Sri Lanka |
| 2005 | Dialog Merit Scholarship. Awarded by Dialog Axiata PLC. | Sri Lanka |
| 2004 | DR.C.W.W.KANNANGARA Merit Award. Awarded by Chadrika Bandaranayke Kumaratunga, the then president of Sri Lanka , for my nationwide academic excellence and achievement in GCE(A/L). | Sri Lanka |
| 2005-2009 | Dean's List. Received Dean's List for all semesters during my undergraduate studies. | Sri Lanka |

PROJECTS

StreamJIT

NUS-MIT

PHD RESEARCH PROJECT

since 2012

- I have architected and developed a new compiler and runtime system, StreamJIT, for high- performance stream processing.
- Prominent features of StreamJIT are cluster-wide JIT compilation, automatic distribution, dynamic recompilation, online autotuning, continuous optimization, and seamless (downtime free) reconfiguration.

Q-Mark Design Commander

Excel Technology

- Q-Mark Design Commander is an industrial automation CAD software for laser marking and engraving, which provides complete control of the laser marking head and any integrated external equipments.
- Frontend is in **C#** and Backend is in **C/C++**.

Ultra Fast Controller-200

Excel Technology

- Designed and developed a hardware interface module that receives commands from front-end software and controls laser engraving head accordingly.

IEEE-1451 Compliant Smart Sensor System for Building Management

Final year group project

- Developed Network Capable Application Processor (NCAP) – software NCAP.
- Developed Smart Transducer Interface Module (STIM) - Hardware Module.
- Developed Application Interface in java – software module.

Automated Customer Connection System via SMS for WiMax

Dialog Broadband

- Receives a static WiMax antenna's GPS coordinates via SMS and automatically configures the antenna and enables it.

Navigation Robot

University of Moratuwa

- Developed a four wheel navigation robot for *Robot Design Competition-2007* held in University of Moratuwa. This robot detects arrows and navigates.

Extracurricular Activity

President (2007) & Member

Aug. 2004 - Apr. 2009

ALL UNIVERSITY STUDENT DEVELOPMENT ASSOCIATION VAVUNIYA (AUSDAV)

Sri Lanka

- *AUSDAV* is a charity organization with the vision of improving education in Vavuniya district, Sri Lanka.
- Arranged series of seminars for O/L students in rural area schools in Vavuniya district collaborate with the Department of Education, Vavuniya, Sri Lanka.
- Organized district level practice examinations for Grade 5 and GCE(A/L) students in collaborate with the Department of Education, Vavuniya, Sri Lanka.
- Arranged a book publication ceremony.
- Gave financial scholarship to poor university students in Sri Lanka.

Member

Since Jan. 2009

THE INSTITUTION OF ENGINEERS, SRI LANKA (IESL)

Sri Lanka

- IESL is the apex body for professional engineers in Sri Lanka (founded in 1906).

Member

Since Aug. 2016

NUS TOASTMASTERS CLUB, SINGAPORE (NUSTM)

Singapore