

Sachin Boban

Curriculum Vitae

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Education

- 2018–current **Master of Science in Computer Science**, *University of Utah*, Utah, .
Graduate Student at School of Computing
- 2009–2013 **Bachelor of Technology in Computer Science**, *National Institute of Technology*, Calicut, *GPA – 9.08/10*.
First Class with Distinction

Experience

Teaching

- Fall'19 **Graduate Teaching Assistant**, SCHOOL OF COMPUTING, UNIVERSITY OF UTAH, Utah.
Graduate Teaching Assistant for the undergraduate course in Computer Systems.
- Summer'19 **Graduate Teaching Assistant**, SCHOOL OF COMPUTING, UNIVERSITY OF UTAH, Utah.
Graduate Teaching Assistant for Master of Software Development (MSD) course in Database Systems.
- Spring'19 **Graduate Teaching Assistant**, SCHOOL OF COMPUTING, UNIVERSITY OF UTAH, Utah.
Graduate Teaching Assistant for the undergraduate course in Computer Systems.

Professional

- Dec 2015 – **Software Development Engineer**, BROADCOM LIMITED, Bangalore.
- June 2018 Part of the Automotive team that develops Automotive grade chip-sets based on BroadR-Reach Ethernet.

My Work included:

- Established documentation and review process, ensuring all documents are reviewed and in sync at every point of time.
- Design and development of UART based Shell/Console with support for command history and shortcut keys, with custom print functions to keep stack usage restricted to 128KB.
- Memory protection using ARM MPU.
- Design and development of drivers for Analog-to-Digital Converter(ADC), Watchdog (based on ARM SP805), Audio-Video Time-stamping etc.
- Development of Atomic APIs based on ARM LDREX and STREX instructions.

- Jul 2013 – **Engineer - Software Development**, BROADCOM COMMUNICATION TECH. PVT.
 Aug 2014 LTD, Bangalore.
- Worked in Camera and Memory Management for Android in Mobile Platform Solutions group.
 - Worked in the development and maintenance of unit testing and associated debugging for NAS team under LTE modem.
- May 2012 – **Summer Research Fellowship**, INDIAN INSTITUTE OF SCIENCE, Bangalore.
 Jun 2012 Worked on DRAM simulations towards understanding the various factors contributing to performance.

Projects

FIFA20 Dashboard.

A visualization project based on FIFA20 player ratings in order to visualize individual player ratings, skill comparison between players using spider plot etc.

Buggy.

An Arduino based gesture controlled robot, with wireless (RF) controls. ○

DRAM Performance Evaluation, Under Prof. R Govindarajan, Indian Institute of Science, Bangalore.

Worked towards understanding the various factors affecting DRAM performance and their effects using DRAMSim2.

Virtual Machine Security, Under Dr. Priya Chandran, National Institute of Technology, Calicut.

A study on the existing security issues associated with the roll-backing mechanism in Virtual Machines and exploration of possible solutions.

Malware Classification.

Worked towards detecting a malware by classifying it into a malware family using Kernel Object Behavioral Graph Clustering. The project gave us an hands-on experience on the basic ways of detecting and identifying a malware.

Programming

Basic *python, XML, Shell (scripting), Plait*
 Intermediate *C*

Activities

- Aug 2012– **Student Coordinator**, *PRISM (Promoting regional schools to international standards through multiple interventions)* .
 May 2013 Kerala government project to raise government schools to international standards, where we helped school students towards improving their academic standards.
- Jul 2011– **Assistant Secretary**, *Club Mathematica*.
 May 2012 Worked as the Assistant Secretary at Club Mathematica, a Tier-1 academic club at National Institute of Technology.
- Jul 2011– **Marketing Manager**, *Tathva'10*.
 May 2012 Worked towards securing sponsorship deals for the annual technical fest of National Institute of Technology, Calicut, India.