

# 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

### 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)* .

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 accademic 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.