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 Developement (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 – June 2018	**Software Development Engineer**, Broadcom Limited, Bangalore. 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 – Aug 2014	**Engineer - Software Development**, BROADCOM COMMUNICATION TECH. PVT. 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 – Jun 2012	**Summer Research Fellowship**, INDIAN INSTITUTE OF SCIENCE, Bangalore.

Worked on DRAM simulations towards understanding the various factors contributing to performance.

Projects

Timer App.
A simple web based count down timer built using React for learning the same.

FIFA20 Dashboard.
A visualization project based on FIFA20 player ratings to visualize and compare the skills of soccer players.

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

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	*JavaScript*, *React (JavaScript Library)*, *C++*
Expert	*C*

Activities

Aug 2012– May 2013	**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– May 2012	**Assistant Secretary**, *Club Mathematica*.

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.