Mihir **Shete**

Computer Science Graduate Student @ UW-Madison

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Education

University of Wisconsin-Madison — *Madison, Wisconsin*

M.S. in Computer Science — *September 2015 - May 2017(Expected)*

- Focusing on research and development in Operating Systems, Computer Networks and Internet of Things.
- Developing **Smart Shoes** for use in Healthcare, Fitness and Virtual Reality applications at ***Internet of Things Lab***.
- **Coursework:** Operating Systems, Introduction to Computer Networks, Machine Learning.

Birla Institute of Technology and Science - Pilani, Goa Campus — *Goa, India*

B.E(Hons.) in Electronics and Instrumentation — *August 2006 - May 2010*

- Concentrated on projects and internships in the areas of Embedded systems' design and development.
- **Coursework:** Computer Programming, Embedded System Design, Analog Electronics(*Professional Assistant*)

Experience

Qualcomm — *Hyderabad, India*

Senior Engineer — *July 2012 - July 2015*

- Primarily contributed to Qualcomm's Linux device driver and was the maintainer of data path and the DMA driver.
- Wrote scripts to analyze data path performance, power consumption and CPU loads.
- Worked on optimizing the data path and the Linux scheduler for Heterogenous Multiprocessors.
- Contributed in the development process for a data offload engine.

TeamF1 Networks — *Hyderabad, India*

Software Engineer — *May 2010 - June 2012*

- Design and Development of Linux device drivers for 802.11 Wireless SoCs in Enterprise Routers.
- Involved in development of a 802.11r solution independent of the available open source alternatives.
- Implemented the RSTP functionality for Access Points.
- Worked on securing the WiFi Alliance's 802.11n certification for interoperability.

Academic Projects & Research

Smart Shoes in Healthcare Management — *Madison, Wisconsin*

Internet of Things Laboratory, UW - Madison — *October 2015 - PRESENT*

- Our Aim is to build a continuous gait monitoring device which can be used in the healthcare industry for managing recovery of patients recovering after hip and knee surgeries.
- Our first demonstration won the **Most Innovative Technlogy** award in the IoT Open-House at UW - Madison.
- We are currently working on developing robust algorithms and optimizing our system for efficiency and accuracy.

Design and Development of Blood Pressure Monitor — *Goa, India*

BITS - Pilani, Goa Campus — *Jan. 2010 - April 2010*

- Developed simulation of circuits and filters involved in the designing of a BP Monitor so that they can be improved upon.
- Another aspect of this project was to survey available BP calculating algorithms and implement them in Matlab/Octave so that they can be studied in detail and be improved for better accuracy.

Design and Verification of Safety Critical Systems — *Goa, India*

BITS - Pilani, Goa Campus — *Jan. 2010 - April 2010*

- A survey of the established standards for designing safety critical systems guided by **Dr. K.R Anupama**.

Open Source Contributions

MSM Linux Kernel Subsystem-Restart feature development and wireless regulatory framework maintenance

Prima Driver Added code to support new DMA hardware and worked on data path maintenance

HTCondor Contributing on developing an improved unit-test framework in perl and C

Course Projects

Unix Shell A simple shell with support for Batch and Interactive modes, command history and redirection

Xv6 Kernel Programming Implemented MLFQ scheduler, threading support, dynamic stack growth functionality and a reliable filesystem

UDP Packet Blaster Implemented a UDP based network analyzer

Skills

Programming C, C++, Python, Perl, Lua, Shell Scripting, Javascript, Latex, Matlab, Java

Tools vim, Eclipse, Android Development Studio