Mihir **Shete**

Computer Science Graduate Student @ UW-Madison

☐ (+1) 608-960-5708 | ✉ smihir@cs.wisc.edu | ⌂ cs.wisc.edu/ smihir | ◷ smihir | in mihirshete

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.
- Got involved in the PSoC club which was newly founded and contributed to designing training material which is used by Cypress Semiconductor as the official Lab Book for the University Alliance Program.
- **Coursework:** Embedded System Design, Medical Instrumentation.

Experience

Qualcomm   *Hyderabad, India*

Senior Engineer   *July 2012 - July 2015*

- As a member of Wireless Connectivity group was involved in design and development of firmware and Linux device drivers for Qualcomm's wireless chipsets.
- Primarily contributed to Qualcomm's opensource **Prima** driver and was the maintainer of data path and the DMA driver.
- Collaborated with the Linux community to engineer the regulatory framework in Prima driver.

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.
- Worked on securing the WiFi Alliance's 802.11n certification for interoperability.
- Involved in development of a 802.11r solution independent of the available open source alternatives.
- Implemented the RSTP functionality for Access Points.

HTCondor   *Madison, Wisconsin*

Student Intern   *September 2015 - PRESENT*

- Design and development of regression test framework for HTCondor, which is an Open-Source software for coarse-grained distributed parallelization of computationally intensive tasks.

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

Professional Assistant   *January 2010 - May 2010*

- Professional Assistant for the course - Analog Electronics(INSTR C364)
- Responsibilities included overseeing and grading Lab sessions.
- Involved in designing assignments for the students.

Cypress Semiconductor   *Chennai, India*

Co-Op   *July 2009 - December 2009*

- Designed a Blood Pressure Monitor reference solution using Cypress' SoCs.
- Involved in PCB design and development.
- Developed BP calculating algorithms based on the current research and implemented them in C and Matlab.

Skills

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

Tools   vim, Eclipse, Android Development Studio

Academic Projects & Research

Smart Shoes in Healthcare Management
Internet of Things Laboratory, UW - Madison

Madison, Wisconsin
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
BITS - Pilani, Goa Campus

Goa, India
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
BITS - Pilani, Goa Campus

Goa, India
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