

## EDUCATION

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### **Master of Science in Computer Science**

*University of Utah, Salt Lake City, Utah*

Graduate Coursework: Distributed Systems, Big Data Computer Systems, Parallel Programming, Rigorous System Design

**Fall 2015 – Spring 2017**

GPA – 3.73

### **B.Tech in Information and Communication Technology**

*Dhirubhai Ambani Institute of Information and Communication Technology, Gandhinagar, India*

**Fall 2009 – Autumn 2013**

## EXPERIENCE

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### **Research Assistant, SOARLab, School of Computing, University of Utah**

**Jan 2016 – Present**

- Working on NSF funded project Dekker to formally verify commodity Kernel modules using Bounded verification tool SMACK (<http://smackers.github.io/>).
- Developed memory model in Boogie IVL and integrated it in SMACK for memory safety checking of C programs.
- Working on Data Structure Analysis of C code for alias analysis using LLVM.

### **Software Engineer, Pipemonk (Formerly Zapstitch)**

**May 2014 – July 2015**

- Joined startup as back-end developer at early stage and contributed towards development of a micro service approach based modular platform for data integration in Java Spring framework. This allowed easy and fast integration of different data sources to the platform and target larger group of customer base.
- This development work led to latest funding round of \$2.5M.

### **Software Engineer, Neptune IT GmbH**

**June 2013 – April 2014**

- Developed banking solution for Home Savings bank using Java Spring MVC framework with Agile development techniques.

### **Software Developer Intern, IBM Research**

**Jan 2013 – Apr 2013**

- Developed an efficient API which provides electric energy consumption data to create an easy to use interactive interface that encourages users to follow suggestions related to usage of appliances.
- Worked with Smarter Energy Group on Project Wattalyst (<http://goo.gl/qV18Yi>) which aims to understand in what context and how would consumers reduce electric energy demand.

### **Software Developer Intern, Google Summer of Code for Mozilla**

**May 2012 – Aug 2012**

- Created a Networking tool called 'Networking Dashboard' for Mozilla Firefox as open source contributor, which displays statistical data about different network protocols of the browser that helped debugging web page performance and connectivity issues.
- The interface exposing this data is written in C++, and the Add-On demonstrating the use of this interface is written in JavaScript.

## TECHNICAL EXPERIENCE

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### **Projects**

- **Stock Prediction** – Applied sentiment analysis techniques to stock related news articles to successfully predict stock market trends. Used Apache Spark for big data processing. **Project Report:** <https://goo.gl/EEszfN>
- **IDS Pattern Matching in CUDA** – Performed performance comparison between string searching algorithms Aho-Corasick and Knuth-Morris-Pratt algorithms on GPU parallel computing platform CUDA.
- **Sharded Key/Value Service** – Developed Paxos based persistent sharded Key/Value service in Go as part Distributed Systems class.

### **Programming Languages and Technologies**

- Java, C, C++, Go, Python, Javascript
- LLVM, Nvidia CUDA, Apache Spark, Spring MVC, Spring MVC, Spring Data, Angular JS, Maven, AWS
- Unix, Windows

