

# Harsha

<https://asystemsguy.github.io>

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## EDUCATION

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- **University of British Columbia** Vancouver, BC, Canada  
*Master of Applied Science in Computer Engineering; Percentage: 88.5*  
*Sept. 2017 – Present*
- **Manipal Institute of Technology** Manipal, India  
*Bachelor of Technology in Computer Science; GPA: 8.86/10.0*  
*June. 2011 – July. 2015*

## EXPERIENCE

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- **University of British Columbia** Vancouver, BC, Canada  
*Research and Teaching Assistant*  
*Sept 2017 - Present*
  - **Research Assistant - Distributed Cloud Native Systems:** Research on cluster schedulers for microservices applications. Modeling inter-dependencies between services & strategies to improve performance and resource utilization in shared clusters. Currently developing an extension to Kubernetes to work with devops pipelines in public clouds.
  - **Lead student - IBM CAS Fellowship Project:** Lead a team of three to work with IBM cloud team to identify reliability issues in their microservices deployments.
  - **Teaching Assistant - Computer Networks and Engineering Design Studio:** Each of the courses has more than 80 third year undergrads enrolled. Involved in creating assignment, exams and conducting recitation sessions.
- **Siemens** Bangalore, India  
*Systems Software Engineer*  
*July 2015 - July 2017*
  - **Angiography:** TensorFlow is an open source software library for numerical computation using data flow graphs; primarily used for training deep learning models.
  - **X-ray Generator Simulation:** Apache Beam is a unified model for defining both batch and streaming data-parallel processing pipelines, as well as a set of language-specific SDKs for constructing pipelines and runners.
  - **Touch based interface for collimeter:**
- **SanDisk** Bangalore, India  
*Graduate Intern*  
*Jan 2015 - June 2015*
  - **SSD Simulator For Interaction testing:** Service for sending email, push and in-app notifications. Involved in features such as delivery time optimization, tracking, queuing and A/B testing. Built an internal app to run batch campaigns for marketing etc.
  - **Develop Environment for FTL in Linux :** Bulk data processing and injection service from Hadoop to Cassandra and provides a thin REST layer on top for serving offline computed data online.

## PROJECTS

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- **Energy Management System for Android Kernel:** Open source python library for financial data analysis and machine learning for finance.
- **REST API Library Over Named Data Networking:** Data Visualization of Git Log data using D3 to analyze project trends over time.
- **MPI Cluster Network Simulator Using Linux Traffic Control:** Music and Movie recommender systems using collaborative filtering on public datasets.
- **Cluster Scheduler for Federated Clusters:** Book that gives step by step instructions on setting up developer environment on Mac OS.

## AWARDS

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- **Innovation Ambassador - Siemens - 2016:** Open source python library for financial data analysis and machine learning for finance.
- **Purskar Award - Siemens - 2015:** Data Visualization of Git Log data using D3 to analyze project trends over time.

## SKILLS

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- **Programming Languages:** C++, Go, Python
- **Technologies:** Cloud(AWS,Google cloud, IBM cloud), Kubernetes, Docker, GCE