

# Manish Shambu

<http://github.com/manishshambu>

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## EDUCATION

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- **University of Colorado at Boulder** Boulder, CO  
*Master of Science in Computer Science; GPA: 3.79/4.0* *Aug. 2017 – (expected) May. 2019*
  - Coursework: Natural Language Processing, High Performance Scientific Computing, Distributed Systems, Internet of Things, Algorithmic Human Robot Interaction, Machine Learning, Algorithms.
- **PES University** Bengaluru, India  
*Bachelor of Engineering in Computer Science; GPA: 8.44/10.0* *Aug. 2011 – July. 2015*
  - Coursework: Analysis and Design of Algorithms, Computer Networks, Operating Systems, Data Structures, Unix System Programming, Database systems.

## SKILL SET

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- **Languages and Libraries:** Python, C, Java, SQL, Java Script, scikit-learn, numpy, OpenMP, MPI, OpenCL
- **Other Tools:** Tableau, Git, Unix, Selenium, Raspberry Pi, AWS, Docker, Kubernetes, Apache Kafka, Hadoop, Spark, Storm, Cassandra

## PREVIOUS DIRECTED RESEARCH

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- **Non Verbal expression for Robots (Advisor - Prof. Brad Hayes)** : Build a system to generate body language for robots
- **Byzantine Chain Replication (Advisor - Prof. Shivakant Mishra)**: Architected and built a Byzantine Fault Tolerant system with  $2f + 1$  replicas.
- **Intelligent Home Security (Advisor - Prof. Tam Vu)** : Built a smart and intelligent home security system. Extensive usage of Raspberry PI to collect sensor data. Real time video monitoring and anomaly detection.

## PROFESSIONAL EXPERIENCE

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- **Visa Inc** United States  
*Software Developer Intern* *May 2018 - August 2018*
  - **Next-gen Tech Products:** Enhanced and developed a gamification application that evaluates people based on few metrics and rank them on a leader board. Prototyped and built an intelligent task assigning system(iTAS) using Drools rule engine in Java.
- **Oracle** Bengaluru, India  
*Software Developer* *Jun 2015 - Jul 2017*
  - **Diameter Signaling Router:** Development of DSR's FCAPS capability. Back end development to deploy DSR on OpenStack and PMAC. Scaled down the deploy time from 1 week(manual) to an hour(automated).

## SELECTED PROJECT WORK

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- **Parallel FFT** : Parallelized the FFT algorithm using OpenMP and MPI. Achieved multi fold improvements in speed.
- **Text classification** : Text classification of good and bad hotel reviews. Detecting deceptive reviews using neural networks.
- **SpeeDroid:** A crowd sourced android application to detect potholes and plot it on Google Maps.
- **Malware Signature Analysis:** Built a framework to detect various types of malware using static and behavioral signature detection.
- **HopIN:** Developed a carpooling software for the students at PES University. Designed and developed the driver rating and crediting system along with on the fly demand matching.

## AWARDS & HONORS

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- Best Innovative Idea award at Student Nokia Developer lab.
- Distinction award during all the semesters at PES University.
- Employee of the year award for delivering the code with quality on time.

## LEADERSHIP AND OTHERS

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- Student representative for CS department at PES Placement Cell.
- Graduate Teaching Assistant for Data Structures course. - Main responsibilities includes teaching and helping undergrads to develop code.