# Santosh Kumar Aenugu

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## EDUCATION

**Oregon State University, Corvallis, OR**　　　　　　　　　　　　　**September 2017 - June 2019**
Master of Engineering, Computer Science. GPA 3.6/4.0

**Birla Institute of Technology and Science, India**　　　　　　　　　**August 2013 – May 2017**
Bachelor of Engineering, Civil Engineering. GPA 7.61/10.0

## SKILLS

(Proficient) C, C++, Python, Unix, Git, Java, JavaScript, SQL, R
(Familiar) MATLAB, Hadoop (HDFS, MapReduce), HTML/CSS, NodeJS, ReactJS, jQuery, Bootstrap

## PROFESSIONAL EXPERIENCE

**Graduate Research Assistant, Oregon State University**　　　　　**September 2017 – June 2019**
- Developed a web plugin for Thumbnail Preserving Encryption (TPE) of images
- Switched to Multithreaded Android App for better performance of TPE
- Developed authentication and photo handling features using Google APIs (Firebase and Photos API)
- Improved performance reducing the run-time by 75% in comparison to single-threaded web-plugin
- Followed best quality practices of Test- Driven Development using unit tests, integration tests
- Leveraged knowledge in Java, Android Development, XML, JavaScript, jQuery, HTML/CSS

**Software Engineering Intern, Nalco**　　　　　　　　　　　　**April 2015 – September 2015**
- Implemented the Graphical User Interface (GUI) of CHP's stacker - reclaimer using Java
- Improved the maintainability of existing applications by refactoring modules
- Leveraged knowledge in Java, Swing, UI/UX development

## PROJECTS

**Raft Consensus Algorithm**　　　　　　　　　　　　　　　　**Jan 2019 – March 2019**
- Implemented Raft Consensus Algorithm for fault-tolerant asynchronous distributed systems
- Developed leader election, re-election, log-append, log-replication and log-matching properties using Python

**MapReduce Engine**　　　　　　　　　　　　　　　　　**January 2019 – March 2019**
- Implemented MapReduce with master and worker nodes for map-reduce operations on distributed file system
- Extracted word counts and pair counts for large datasets using Jython on Hadoop HDFS

**Course Review System**　　　　　　　　　　　　　　**September 2018 – December 2018**
- Developed Web app to allow users to read/ write reviews for courses at OSU
- Authenticated users through their respective OSU login credentials
- Practiced Scrum based Agile methods to collaborate with team using Git for code reviews and commits
- ScrumMaster for 1st Sprint, developer for the subsequent sprints (3 sprints of 2 weeks each)
- Used HTML/CSS, JavaScript, ReactJS, NodeJS, Bootstrap, jQuery, AJAX, Full Stack Web Development, Git

**Intelligent Agent for Anti-Chess**　　　　　　　　　　　　**March 2018 – June 2018**
- Developed an Intelligent Agent to play Anti-Chess using Monte-Carlo Tree Search for generating all possibilities at each step
- Selected the best alternative at every step among all possibilities using Q-Learning policy for decision making

## HONORS AND AWARDS

- Won Bronze Medal in Chess during National Sports Fest (Arena, 2015)
- Won Honorary award from EECS(Electrical and Computer Science Department) at Oregon State University