

# RACHIT THIRANI

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Linkedin - <https://www.linkedin.com/in/rachitthirani/>, Portfolio - <https://rachitthirani.github.io>

## EDUCATION

**MASTER OF COMPUTER SCIENCE – NC STATE UNIVERSITY, RALEIGH, NC – AUG 2016-DEC 2017**

**Courses** - Operating System Principles, Data Intensive Computing, Design and Analysis of Algorithms, Advance Data Structures, Automated Learning and Data Analysis, Algorithms for Data Guided Business Intelligence, Database Management Systems, Graph Data Mining, Foundations of Data Science, Artificial Intelligence

**BTECH IN INFORMATION TECHNOLOGY – MANIPAL UNIVERSITY, MAINPAL, INDIA – 2010-2014**

## EXPERIENCE

**SOFTWARE DEVELOPMENT ENGINEER – AMAZON ALEXA, MLPS – FEBRUARY 2019 - PRESENT**

- Designed and developed server less applications using NAWS applications for Amazon scientists to run their experiments faster.
- Designed and developed applications to save efficiently use clusters, used to run Machine Learning experiments , which resulted in saving millions of dollars.
- Designed and developed Instrumentation frame work used by the Machine Learning Platform Services Team, to track the progress and failures ahead of time.
- Solved multiple high severity issues and improved the ticket queue by solving recurring issues by diving deep into the issue and coming up a solution, improving the overall project performance.
- Gave multiple KT sessions to train existing and new team members.
- Technologies Used - **Java, Python, Mockito, Dagger, Guice, Lambda, SQS, SNS, Step Functions, Kinesis, AWS**

**SOFTWARE ENGINEER – CISCO – MAY 2018 - FEBRUARY 2019**

- Developed a Multi Cloud Management Platform.
- Wrote Restful APIs for CRUD operations, APIS to connect with Cloud Service Providers and utilize their services. manage all operations through single portal.
- Wrote Modular Code for CI/CD.
- Technologies Used - **Go, Cassandra, Swagger.**

**COMPUTER PROGRAMMING INTERN – CIPM, NCSU – SEPTEMBER 2017 - MAY 2018**

- Modifying and cleaning data.
- Creating and evaluating different machine learning techniques for prediction.
- Web developer
- Technologies Used - **Python, R, Pandas, Wordpress.**

**INTERACTIVE DEVELOPER L1 – SAPIENT NITRO – 2014-2016**

- Specialized developer in **Front-End** domain for several multi-million dollar clients.
- Developed and tested responsive components with cross browser compatibility for client's webpages.
- Reduced the maintenance effort required by automation of CSS for all clients's modules using GRUNT and LESS.
- Track Lead and Point of Contact for all Front End development.
- Additional Technologies Used - **HTML5, AJAX, Javascript, JQuery, Bootstrap, NodeJS, AngularJS, CSS3.**

## SKILLS

- **Computer Languages** - C, C++, Java, Python, Go
- **Data Science** - R, Apache Kafka, Spark, Doc2Vec, NetworkX, Numpy, Scipy, Pandas, Matplotlib, NLTK, Scikit-Learn
- **Web Development** - HTML5, CSS3, Grunt, Javascript, NodeJS, LESS, AJAX, HandleBars, AngularJS, ReactJS
- **Cloud** - AWS, DynamoDB, Map Reduce, Distributed Systems, Kinesis, Pig, Hive, Hadoop Amazon EC2

## PROJECTS

GitHub - <https://github.com/rachitthirani>

### Operating Systems

**Non Persistent Heap** - Developed an in-memory kernel module, that provides efficient data sharing among different processes, in **C** which maps kernel space memory into user space memory using the user-space library interface and assigns the requested size memory , specified by the offset, in kernel using the offset.

**Transactional Non Persistent Heap** - Designed a kernel module in **C** which utilizes the concept of concurrency without locking. Version number is maintained for the object and a transaction is allowed to commit only if the version number is the same. If the transaction cannot commit, it is aborted and restarted.

**Non Persistent Heap File System** - Implemented a File System in **C** using the Fuse library and previously developed NPHeap kernel module. The file system is compatible with conventional file system operations. Data structures and operations that maintain the abstraction of a file system were implemented, with persistent data storage capabilities.