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| RAJAN PATEL  Email Address · Phone LinkedIN |  |

# Experience

Software Engineer 2 @ AMAZON WEB SERVICES 2016 -

* Designed and implemented Backend throttling for AWS CloudFormation service, which provisions the resources on behalf of customers
  + Implemented the throttling mechanism to control the numerous asynchronous workflows triggered in the backend service as part of resource provisioning.
  + This design later got extended for organization-level-throttling – throttling of multiple calls coming from a single AWS organization (w/ multiple accounts).
* Lead the [Resource-Import project](https://docs.aws.amazon.com/AWSCloudFormation/latest/UserGuide/resource-import.html) for AWS CloudFormation.
  + ResourceImport feature allows customers to import any resources created outside of AWS CloudFormation to import into CloudFormation stack.
  + Designed and implemented asynchronous workflows for import and rollback
* Tech Lead for the ["Pause-and-resume" project](https://aws.amazon.com/blogs/aws/new-for-aws-cloudformation-quickly-retry-stack-operations-from-the-point-of-failure/)
  + Pause-and-resume project was the most asked feature in AWS CloudFormation where customers can have flexibility to disable-rollback on a resource provisioning failure for better troubleshooting and retries.
  + Designed and implemented the core framework for pause-and-resume state machine.

Software Engineer @ AT&T June 2016 - 200X

* Created Spring based Restful services for the successful transportation of cloud-based data
* Used Hibernate as ORM tool to implement it as Object Oriented Domain Model in addition to integrating the system database with the Operational processing of the software
* Managed token management using MYSQL Workbench to store the token properties and used base-64 encryption method to encrypt the token properties while adhering to the security guidelines of the company.

Software Engineer @ ERICSSON INC. May 2015 - May 2016

* Developed prototype of a workflow engine to enhance usability with better views and task management using Ericsson’s propriety SDK which integrated seamlessly with their existing Inventory Management System

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# Education

**MS Rutgers University,** Computer Science May 2016

* Advanced Data Structures and Algorithms, Operating System Design, Computer Architecture

**BTECH Nirma University**, Computer Engineering May 2014

* Introduction to JAVA SE, Compiler Construction, Data structures and Algorithms, Computer Networking, Artificial Intelligence, Operating Systems in Linux.

# Skills

* Programming – JAVA, JAVA EE., C, SQL
* Framework – Spring MVC, Hibernate / JPA, Hadoop
* Build Tools – Maven, Gradle

# Projects

## **Map Reduce Task on Chess games database**

* Processed and deduced 10,000,000+ records in PGN format for statistical analysis.
* Used Amazon Hadoop EMR clusters to complete MapReduce task.
* Wrote library to parse Portable Game Notation files into MapReduce tasks

## **Implementation of Intel x86 super scalar architecture**

* Designed a 5 Stage X86 Superscalar CPU with Fetch, Decode, Execute, Memory, Write Back stages integrated with 4 way Set Associative Data Cache in Verilog having Write Back with Write Allocate Policy.