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# Summary

* About 2 years of experience in software design, development, analysis and deployment of Client-Server business applications using **Object Oriented Analysis** **Design** **(OOAD, OOPS)** and **Java/J2EE** technologies with **Software Development Life Cycle (SDLC).**
* Experience in Software Development Life Cycle(**SDLC**), application design, functional and technical specs.
* Experience in working with Web based applications using technologies like **Java**,**Spring MVC**, **AJAX** **Hibernate**, **JSP**, **Servlets**, **HTML**, **CSS.**
* Experienced with incorporating **RESTful** services into application as well as creating them.
* Implemented public web services to use for database connection.
* Extensive familiarity with **MySQL** database management, **Stored Procedures, Triggers, T-SQL**.
* Cloud applications test experience utilizing cloud automation tools. (**Cloud formation, Ansible, Packer**).
* Strong hands on experience on Automation tools like **Terraform** and **Packer**.
* Experienced in **Agile Methodology**, actively lead and participated in requirements gathering, design, development and creation of unit tests.
* Proficient in using **Amazon Web Services** resources like **EC2, VPC, S3, RDS, ELB, Auto-Scaling, API Gateway, IAM, EBS, Route53, CloudWatch and CloudFormation**.
* Experience in creating **S3** buckets and managed policies for **S3** buckets and used Glacier storage and backup on AWS using lifecycle policies.
* Experienced in creating **Amazon** **EC2** instances and setting up **security groups**. Configured **Elastic Load Balancers** with **EC2 Auto scaling groups**.
* Creating **Snapshots** and **Amazon machine images (AMIs)** of the instances for backup and creating clone instances.
* Experienced with cloud developer tools like **AWS Code commit**, **Code pipeline**, **Elastic Beanstalk**, **Code Build**, **AWS Codestar** and **Code deploy**..
* Good hands on experience with **Unix/Linux OS.**
* Experience in using version control systems like **Git**.
* Experience in working over web services with **REST**.

# Education

## Masters of Science | May 2016|MArist College, NY

Major: Computer Science

## Bachelor of Technology | JUNE 2014|SVIT, Hyderabad, India

Major: Computer Science Engineering

**Certifications**

**JAVA SE 8 PROGRAMMER | FEB 2017**

**Technical Skills**

Programming Languages : Core Java, Android programming, Python

Database**s** : MySQL, PostgreSQL

Operating Systems : Windows, Ubuntu, CentOS7

Web Technologies : HTML, CSS, AJAX

Virtualization and Cloud : AWS, Virtual Box, VMware, Jenkins

Automation : Packer, Terraform, Ansible

Web Frameworks : Spring MVC, Flask, Hibernate, Servlets

AWS Services : IAM, EC2, VPC, Code Commit, Code Pipeline, Code Build, Elastic Beanstalk, AWS Codestar, AWS Lambda, SNS, Cloud Watch, S3, RDS,

API Gateway

# Experience

## AWS WEB Engineer | FUTUREWEI TECHNOLOGIES, Inc | SEP 2018- CURRENT

Responsible to build the Enterprise Support Web application and web applications to convert the markdown file to HTML

**Responsibilities:**

* Involved in **SDLC** requirements gathering, analysis, design, development and testing of application, developed using **Agile** methodology.
* Created **IAM** users and roles based policies to access AWS services.
* Built web application and hosted that application on **Elastic Beanstalk**.
* Built the **CICD** infrastructure on **AWS** cloud using developer tools of AWS.
* Configured **AWS Identity and Access Management (IAM)** Groups and Users for login authentication.
* Evaluated the usage of different services of AWS for deploying Web application such **as AWS Codestar**, **EC2**, **Elastic Beanstalk** and **AWS Lambda**.
* Built the **CICD** infrastructure with **AWS Code commit, AWS Code pipeline, Jenkins and Elastic Beanstalk**.
* Used **Jenkins** and **AWS Code Build** plug-in to deploy the application into AWS cloud.
* Involved in setting up **Static Web hosting** for the **Front End(React Js)** of application using **S3** Bucket to host the web site.
* Designed Database schema for application and setting up **AWS Mysql RDS** databases for project, and migrated data to **Relational Database Services** (**RDS**).
* Used **API Gateway** to invoke **AWS Lambda** function to build a **server less** web application.
* Used **Java Spring boot** to create spring web applications.
* Developed **Java/J2EE** code, business logic using **Spring, Hibernate framework and OOP concepts**
* Created **controllers** that handle browser requests and returned model and view to client.
* Implemented **RESTful** Web services in **Service Oriented Architecture (SOA)** to retrieve data from client side and made **REST API**.
* Integrated Spring **DAO** for data access using **Hibernate** to fetch data from database and avoid redundant database access statements.
* Implemented Web-Services to integrate between different applications (internal and third-party components) using **RESTFul** service.
* Used Java Collections to store data and passed along to **JSP**.
* Built Web application to convert the **markdown** files into **HTML**.
* Deployed on **AWS** **Elastic Beanstalk** with **Tomcat Server** running.
* Used **Terraform** to build the infrastructure through code in single go this tool is used to automatically deploy the service stack in the specified **AWS region**.

**Environment: Java 1.8,Spring Boot 2.0, Hibernate, Tomcat 8, IAM, EC2, VPC, Jenkins, Code commit, S3,RDS, API Gateway, AWS Lambda, Elastic Beanstalk, Code Pipeline, Codestar, Code Build, SNS, Cloud Watch, Autoscaling, Elastic LoadBalancer, Go Lang, Markdown.**

## Java/AWS DEVELOPER | SIMPLEX INFO SYSTEMS, Inc | MAY 2018- SEP 2018

**Responsibilities:**

* Involved in **SDLC** requirements gathering, analysis, design, development and testing of application, developed using **Agile** methodology.
* Implemented Web-Services to integrate between different applications (internal and third-party components) using **RESTFul** service
* Developed **Java/J2EE** code, business logic using **Spring**, **Hibernate** framework and **OOP** concepts
* Developed and scheduled queries using **SQL** .
* Launching **RDS** instance to support web application functionality.
* Designed the workflow, system architecture, drawing sequence diagrams, activity diagrams, class diagrams, **HTML** pages, database schema and tables.
* Used **Hibernate** to persist and retrieve data from database.
* Wrote **DAO** layer, required SQL queries and Spring Controller to handle data and request to **Spring** application
* Used **Hibernate** for persistence layer and also used **HQL** for query purpose.
* Developing the front-end Web pages using **JSP**, **JavaScript**, CSS style sheet.
* Responsible for modifying Spring **JDBC** Template to update the tables to generate the reports and purge the tables based on the configuration provided in the property file and the table
* Performed **J2EE** application deployment and administration including **JAR**, **WAR**,
* Migrating complex, multi-tier applications on **AWS**
* Use Case, Class, Sequence diagrams and also in complete development, testing and maintenance process of the application
* Perform monitoring using **CloudWatch** for **EC2** instances.
* Implement and maintain monitors, alarms, and notifications for **EC2** instances using **CloudWatch** and **SNS**.
* Maintained and debugged applications.

**Environment: Java 1.8, Spring Boot 2.0, Hibernate, JSP, Mysql, AWS EC2, RDS, Cloud Watch, SNS, Maven,JSP, Java Script.**

## Software Engineer | Stratedge, Inc | April 2017- May 2018

Working on Immigration Process and Compliance Management(ImPoCom) Webapp. This complies with immigration process and paper work while filing the immigration petitions/applications in addition to staying complaint every stage of employment of a nonimmigrant worker as per the immigration policies set forth by U.S Citizenship and Immigration Services and Department of Labor.

**Responsibilities:**

* Involved in **SDLC** requirements gathering, analysis, design, development and testing of application, developed using **Agile** methodology.
* Designed and developed the UI using **JSP, HTML, CSS, AJAX** and **JavaScript**
* Implemented RESTful Web services in **Service Oriented Architecture (SOA)** to retrieve data from client side and made **REST API**.
* Integrated Spring **DAO** for data access using **Hibernate** to fetch data from database and avoid redundant database access statements
* Implemented Web-Services to integrate between different applications (internal and third-party components) using **RESTFul** service
* Wrote test cases using **JUnit** as the Unit testing framework.
* Provision **AWS** resources using management console as well as command line interface.
* Plan, build and configure network infrastructure within **VPC** with public and private subnets, configure routing tables and internet gateway.
* Responsible for launching **EC2** instances with Windows **AMI**, using **auto-scaling** and **load balancers**(**ELB**). Also, defined security groups depending on access parameters provided.
* Created **IAM** users and roles based policies to access AWS services.
* Created Stored Procedures, functions, views, indexes and constraints, triggers required SQL tuning to reduce the response time in the application.
* Developed and scheduled queries using **SQL** .
* Perform monitoring using **CloudWatch** for **EC2** instances.
* Implement and maintain monitors, alarms, and notifications for **EC2** instances using **CloudWatch** and **SNS**.
* Launching **RDS** instance to support web application functionality.

**Environment:** **Java, Spring MVC,Hibernate,JSP, HTML, CSS, JavaScript, MySQL, AWS services (IAM, VPC, RDS, EC2, SNS, CloudWatch, Auto-Scaling, Elastic Load Balancers, Security groups**)

## Software Engineer | gnyana, Inc | AUG 2016 – Apr 2017

**Designed “Employee online training Portal”**. This portal provides a catalog listing different training module of Hadoop technologies. A user/employee is authenticated securely to access the portal as well as the specific modules he/she is authorized for access. This portal framework involved:

* Three tier application (web, application and Database) provisioned in AWS public cloud.
* All the user requests are front-ended by the Nginx Web Server for scalability. These requests are sent to the Application server **(Python web application**), the application server communicates to the Database to write or read the information.
* Web Tier: The web server is based on Nginx configured on RedHat 7.0 server VM.
* Application Tier: **Python** based application web server based on **Flask framework**. This server is instantiated on Redhat 7.0.
* Database Tier: The backend database is **MySQL** implemented on **AWS RDS.**
* The Admin of the portal can create/delete/modify users and their privileges through **REST API** calls.
* Users after successful authentication have privileges to access specific resources. Users cannot create or delete the content in the Database.
* Git hub is used as secured/trusted repository and the source code is pushed to this repository.
* Deployment: Various AWS services are utilized to deploy this service such as, Virtual Private cloud (**VPC**), VPC networking, **Elastic Load Balancers, Route53, EC2, Security Groups, Auto-scaling, CloudWatch and S3, RDS**.
* **Packer:** This tool is used creating different AMI images used for this service. The source code, required packages and their dependencies are part of the image building process on Redhat 7.0 Base image.
* **Terraform:** This tool is used to automatically deploy the service stack in the specified AWS region. Ansible is used to pass the user data at the time of bringing up the Virtual machines.

**Environment: Python, Flask framework, WTforms, Jinja2 templet, Bootstrap, Nginx, MySQL. AWS services (VPC, Elastic Load Balancers, Route53, EC2, RDS, Security Groups, Auto-scaling, CloudWatch and S3**).

# Academic Projects

## Software Defined Networking (SDN- Research Presentation)

A research project on RFC 7426 with detailed illustration on SDN architecture with a case study including Openflow protocol and OSPF.

This presentation presents a high-level view of Software defined networking (SDN) technology based on the architectural principles of SDN defined by Open Networking Foundation (ONF) and SDN RFC 7426. The basic SDN concepts, architecture, SDN examples, benefits and drawbacks are presented.

## Message passing interface

Used the Message Passing Interface concept to perform operations on a huge matrix by distributing portions of it amongst a cluster of nodes. Collective communications and point-to-point communications were explored. For example, in collective communications, such as scatter- gather, the huge matrix is evenly split among all nodes of the cluster. These nodes perform operations on the small portion of the matrix that they received and send it back to the master node. Thus, the speed of computing increases considerably.

**Tools: Python, MPI python API, Hadoop cluster, VMWare Workstation**.

**Simulations of packet processing models used in routers**

Simulation of M/M/1 Queuing model used in routers. The queuing model assumes that the waiting time, service times and inter arrival time of the incoming packets are exponential random variables. Based on these assumptions the waiting time for the packets to be served by the switch or router is calculated. The analysis is carried out for a large number of incoming packets and the average waiting time, number of packet arrivals and departures are calculated.

**Tools:** **Python, matlab**

## Cipher book

Developed an algorithm for AES 128 bits and embedded into an android application for encrypting and decrypting. The application is useful to save important passwords or any confidential codes in an encrypted format into a file.

**Tools:** **Java, Android Studio (Intents, Sound Pool, services, adapter file output stream, toasts, content providers, layouts, manifest)**

## Metric Collector Software

Designed a task manager design for Linux OS using agile development methodology. The goal of the project is to collect the CPU, network, memory and file metrics for Linux OS. JavaFx was used for designing of UI, MySQL is used as a database. Designed the database structure and wrote queries to extract and aggregate data.

**Tools: Java, JavaFx, MySQL**