






Ibrahim Mohamed

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Education

Memorial University of Newfoundland

St. John's, NL

BSc In Computer Science & Business Administration Minor 3.8 GPA

2020–2024

Coursework: Data Structures/Algorithms, Web Programming, Object-Oriented Programming

Anticipated Graduation Year: 2024

Technical Projects

AWS Certified Solutions Architect

AWS

Feb 2022–April 2022

- Designed solutions by using appropriate AWS services and following architectural principles based on requirements
- Demonstrated the ability to provide implementation guidance based on best practices to the organization throughout the workload life cycle
- Designed and implemented resilient, high performing, secure and cost optimized architectures on AWS

Distributed Serverless Workflow for Stock Price Movements

Python, AWS Lambda, DynamoDB, SQS, SES, CloudWatch Events

Feb 2022–Mar 2022

- Built a Serverless workflow that sends out an email notification when there is a 5% increase in Tesla's stock price
- Utilized CloudWatch Events to trigger the workflow by sending a notification to SQS at 1-minute intervals
- Programmed Lambda function in Python to consume the notification from SQS, then communicate with Yahoo Finance API to retrieve the current market price of the Tesla stock and store it in a DynamoDB database
- Utilized DynamoDB streams to detect updates in the database and trigger a second Lambda function to calculate the change in price, then send an email notification via SES if there's a 5% increase

Personal Portfolio Website

AWS S3, Route53, CloudFront, Lambda, Python, HTML, JavaScript, CSS

Jan 2022–Feb 2022

- Developed a personal portfolio website using HTML, CSS Bootstrap framework, and several JavaScript libraries
- Calculated user trends and patterns by gathering data using Google Analytics tracking tags
- Optimized the website by leveraging CloudFront to communicate with AWS S3 and deploy the website on 225+ points of presence guaranteeing ultra-low latency and high availability
- Utilized Route53 DNS service to map CloudFront to a custom domain to deliver the website to end users
- Programmed a Lambda function in Python to detect S3 bucket updates and invalidate the CloudFront cache

To Do List

Flask, SQLite, CSS, JavaScript, HTML, Elastic Beanstalk

Oct 2021–Dec 2021

- Developed a web-app using the Flask framework in Python that allows users to create their own to-do-lists
- Designed the app following the CRUD principles allowing users to create, update and delete items from their to-do-lists
- Utilized SQLAlchemy to facilitate the connection between the app and the SQLite database
- Utilized Elastic Beanstalk to host the app, and optimized it by using an application load balancer attached to an auto-scaling group
- Utilized Route53 DNS service to map Elastic Beanstalk to a custom domain to deliver the app to end users

Skills

Programming: Python (Django, Flask), HTML, JavaScript (React), CSS (Bootstrap), Java.

Databases/Cloud: AWS, SQL, DynamoDB, EC2, ELB, ASG, S3, RDS, Route53, SQS, SNS, ECS, VPC.

Version Control: Github.

Certificates

Amazon - AWS Certified Solutions Architect

Mar 2022

Johns Hopkins University - HTML, CSS, and Javascript for Web Developers

Feb 2022

University of Michigan - Using Python to Access Web Data

Aug 2021

University of Michigan - Python Data Structures

Aug 2021