**Cloud Resume Project Documentation**

**Project Overview**

The **Cloud Resume Project** is an end-to-end cloud-based deployment of a personal resume website. The website is developed using HTML and CSS and is hosted on AWS. This project integrates several AWS services to provide automated deployments, secure content delivery, and a notification system when the CV is downloaded. The project showcases skills in cloud architecture, infrastructure as code, CI/CD pipelines, and serverless computing.

**Project Components**

**1. Front-End Development**

* **HTML/CSS**: The resume website is built using standard HTML and CSS.
  + The website includes a profile picture, contact details, a summary, experience, education, certifications, projects, honors, volunteering work, skills, and language sections.
  + A download button allows users to download the resume as a PDF.

**2. Continuous Integration and Continuous Deployment (CI/CD)**

* **GitHub Actions**: The code is stored in a GitHub repository. GitHub Actions is used to automate the process of deploying the website whenever changes are pushed to the repository.
* **AWS CodePipeline**: The pipeline automatically pulls the code from GitHub, runs any necessary tests, and deploys the updated website to an S3 bucket.

**3. Hosting and Content Delivery**

* **Amazon S3**: The website is hosted on an S3 bucket, which stores the static files (HTML, CSS, and images).
* **Amazon CloudFront**: CloudFront is used as the content delivery network (CDN) to serve the website securely with HTTPS.
* **Amazon Route 53**: DNS routing is managed by Route 53, which directs users to the CloudFront distribution.

**4. Backend Integration**

* **Amazon API Gateway**: API Gateway is used to create a RESTful API endpoint that triggers the Lambda function when the CV download button is clicked.
* **AWS Lambda**: A Lambda function is used to send an email notification via SNS whenever the CV is downloaded.

**5. Notification System**

* **Amazon SNS**: Simple Notification Service (SNS) is used to send email notifications when the CV is downloaded.

**Architecture Diagram**

A diagram of a cloud computing system

Description automatically generated