# Ajith Jayaraman Nair

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#### **PROFILE SUMMARY**

Software engineer with 4+ years of full-stack software development experience working on distributed systems in an agile environment.

#### **EDUCATION**

## University of Illinois at Chicago (UIC) – Chicago, Illinois

Aug 2019 - May 2021

Master of Science in Computer Science

GPA: 3.88

#### **SKILLS**

Languages: Python, Kotlin, Typescript, Java, C#, ruby.

Cloud Services: AWS Lambda, S3, SNS, API Gateway, DynamoDB, Kinesis, Transfer Family, Secrets Manager, SES, Pinpoint

Technologies: Terraform, React JS, Android, Docker, Kubernetes, Selenium, .NET

Database: AWS DynamoDB, SQL Server, MySQL, MongoDB.

### PROFESSIONAL EXPERIENCE

Slalom Build

Software Engineer

Chicago, IL

Designed and developed backend modules of a banking application with Event Driven Architecture using serverless

- architecture on AWS.

  Implemented microservices using AWS Lambdas in Kotlin and Python backed with AWS Kinesis Data Streams and
- DynamoDB database for push notifications management.
   Configured AWS SNS platform and endpoints to push notifications to devices registered using Firebase Cloud Messaging.
- Designed backend modules for a customer support messaging service to provide live chat support.
- Planned and managed migration of Lambda services to arm64 architecture improving price performance by 25%.
- Developed tool to analyse performance of API endpoints with breakdown of execution time of components of the service
- Managed IAM roles, policies, and resource provisioning with Infrastructure As Code using Terraform.
- Designed unit and integration test scripts using Mockk, Pytest and Rspec for test-driven development of modules.

Slalom Build Jun 2020 – Aug 2020

Software Engineer Intern Chicago, IL

- Implemented Client Visit Management system to manage virtual and in-Person customer tours to Build Centres.
- Designed and developed role management module using AWS Cognito User Pool and Authentication triggers with SSO integration using Azure Active Directory.
- Developed React components with **Redux** and **Hooks** for state management to support UI of the role management module.
- Integrated AWS SAM CLI scripts to generate user for automated API and UI testing in the deployment pipeline which helped increase testing efficiency by 20%.
- Developed AWS API Gateway APIs backed by a NodeJS Lambdas and Dynamo DB.

### **Fides Consultancy Services**

Jan 2019 – July 2019

#### **Software Consultant**

Mumbai, India

- Implemented ERP application to handle freight inventory management, imports and sales request management which helped improve QoQ profits of the client by 30%.
- Designed and developed maker-checker workflow modules which helped reduce turnaround time of requests by 25%.
- Developed endpoints to manage API requests using .NET MVC and SQL Server and deployed to AWS EC2 instance.

## **Tata Consultancy Services**

Aug 2015 - Oct 2018

### **Systems Engineer**

Mumbai, India

- Implemented modules for workflow management software to manage over 300,000 visa processing requests per month.
- Developed modules for GST integration automating tax calculations using .NET Web Forms with SQL Server.
- Implemented SQL Server Agent jobs to automate multiple business operations which decreased cost of operations by 10%.

## **PROJECTS**

Task Planner - .NET Core Microservices, C#, Docker, AKS, SQL Server, Android, SQLite

- Designed a Container and Microservice based architecture for backend APIs using .NET Core and Docker for a Daily Task Planner application.
- Designed CI/CD pipeline to deploy microservices to Azure Kubernetes Service cluster.
- Developed mobile application consuming the backend APIs using Android with SQLite DB and Background service.

#### Distributed Hash Table Implementation - Akka Http Actor Model, Scala, Docker

- Implemented simulation of Chord Algorithm used in peer-to-peer network distributed hash table for data look-up and storage using Lightbend's **Akka Http Actor model** in **Scala**.
- Deployed Docker image of application on Docker Hub by integrating with Bitbucket pipeline.