Ajith Jayaraman Nair

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EDUCATION

University of Illinois at Chicago (UIC) – Chicago, Illinois **Aug 2019 - May 2021**

Master of Science in Computer Science **GPA: 3.85**

- Coursework: Mobile App Development, Cloud Computing, Information Retrieval, Machine Learning, Computer Security

University of Mumbai **Aug 2011 - July 2015**

Bachelor of Engineering in Computer Engineering **GPA: 3.5**

- Coursework: Data structures, Algorithms, Object-oriented design, Database management systems.

SKILLS

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

Technologies: .NET Core, Android, Docker, Kubernetes, AWS Lambdas, EC2, AKS, Selenium, RabbitMQ, React JS, EMR.

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

PROFESSIONAL EXPERIENCE

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**.
- Prepared daily project status report for client using **Microsoft SSRS** to study business trends.
- 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 Task Planner.
- Designed CI/CD pipeline to deploy app Kubernetes cluster to **Azure Kubernetes Service**.
- Developed mobile application consuming the backend APIs using **Android** with **SQLite** DB and Background service.

Fill The Form - *Python, Selenium, Beautiful Soup, NLTK, Google Vision AI*

- Implemented an automated rule-based form filling application using **Selenium** with **Python, Beautiful Soup and NLTK Library** that generates input values bypassing error validation.
- Designed modules to automatically detect validation messages on web page by integrating with **Google Vision AI.**
- Designed heuristics-based inference system to generate input values based on the error messages feedback form the system.

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.

DBLP Map Reduce - *Apache Hadoop with Scala, AWS EMR*

- Designed Map-Reduce model using **Apache Hadoop** with **Scala** for parallel processing of the DBLP dataset of IEEE publications to identify different statistics pertaining to the authors of the publications and their correlations.
- Deployed the model on **AWS Elastic Map Reduce** on a multi-cluster environment and generated visualizations and graphs.