NAGARAJ ARCHAK

Master of Information Technology, Monash University

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WORK EXPERIENCE

Accenture | Bangalore, India
Products & Platforms Engineering Services

Data Engineering - OTT Recommendations System
Apr'21 - Feb'23 | Client: Media Multinational - America

- Built streaming ETL pipelines that read from a Deltalake table and implemented crawling S3 datalake with AWS Glue Crawlers orchestrated using Airflow.
- Built ETL (Extract, Transform, Load) scripts using Python and Pyspark to process data and feed to AWS Personalize service.
- Built source agnostic & scalable ETL pipeline infrastructure on AWS Glue & S3 with Golang and Pulumi.
- Worked with SQL aggregate queries and AWS Athena to analyse and clean data. Implemented metrics dashboard and failure alerting system with DataDog.

Competitive Benchmarking - OTT Quality of Experience
Nov'20 - Mar'21 | Client: Media Multinational - America

- Built a tool with Java and Appium to capture and visualise QoE metrics like app launch time, video playback failures, video buffering and blurring effects.
- Captured metrics were stored to SQL database and Grafana was used to visualise app and video performance metrices captured over a period of time.

Loyalty Product Development with Spring Microservices
Jul'19 - Nov'20 | Client: Telecom Multinational - UAE

- Designed over 50 GET & POST REST APIs with Java 8, Spring Framework and learnt to implement design patterns like builder and singleton patterns.
- Worked with MongoDB database integration with backend APIs and learnt to construct NoSQL aggregate queries.
- Implemented integration of RedHat's Single Sign On feature with the application's backend and used RedHat's Openshift Kubernetes platform, Jenkins and BitBucket for CI-CD.
- Wrote Junit test cases with Mockito framework and used Postman for API testing.

Road Quality Assessment with Deep Learning
Jan'19 - Jul'19 | Accenture Internal Project

- Curated a dataset of satellite images of roads, preprocessed data and trained convolutional neural network architectures like VGG16, ResNet50, InceptionV3 and DenseNet on AWS EC2 GPU instances.
- Used regularization, early-stopping and learning rate decay to avoid model overfitting. Tuned hyper-parameters to achieve a test accuracy of 97.4% on VGG16 architecture.
- Implemented confusion matrix to analyze false positives and true negatives and built a Flask based web interface to retrieve predictions on uploaded images.

Accenture Technical Training
Sept'18 - Dec'18

- Received training in Python, Java, JSP, Front End Web Development (HTML, CSS), Unix, Spring Framework (Spring Boot, Spring Security) and DevOps tools like Jenkins for Continuous Integration and Deployment.

EDUCATION

Monash University, Melbourne
**Master of Information Technology
(Expected Graduation - Dec 2024)**
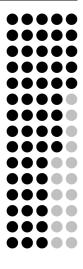
National Institute of Technology Tiruchirappalli, India
**Bachelor of Technology - Graduated 2018
Electronics & Communication Engineering**

Global Indian International School, Singapore
High School - Graduated 2014

TECH EXPERIENCE

Skill	Rating
Python, Pyspark, Databricks	●●●●●
AWS Glue, Athena, S3	●●●●●
AWS DynamoDB	●●●●●
Java, Spring Boot	●●●●●
MongoDB, SQL	●●●●●
Golang, Pulumi, Terraform	●●●●○
Bootstrap, HTML, CSS	●●●●○
Selenium, Appium	●●●●○
AWS Quicksight, Datadog	●●●●○
AWS Personalize, EMR	●●●○○
AWS MWAA (Airflow)	●●●○○
CircleCI, Jenkins	●●●○○
Grafana, PagerDuty	●●●○○
Github Actions	●●●○○
Unix Commands	●●●○○

CORPORATE AWARDS

- Accenture Celebrates Excellence Award Q4 2022
- Accenture Products & Platforms Great Minds Award 2022
- Accenture Celebrates Excellence Award Q1 2022
- Accenture Products & Platforms Great Minds Award 2021
- Accenture Products & Platforms Cloud Native Engineering - Ace of Initiative Award 2021
- Accenture Celebrates Excellence Award Q4 2020

COURSES

- FIT9136 Algorithms & Programming Foundations in Python
- FIT9131 Programming Foundations in Java
- FIT9132 Introduction to Databases
- FIT5125 IT Research Methods