

Vivek Jacob Chacko

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Education

Master of Information Technology, Data Science

Arizona State University, Arizona

May 2020

GPA: 4.0/4.0

Technical Skills

- Programming/Scripting Languages: **Scala**, PL/SQL, **Java**, Python, Java Script, HTML/CSS, PHP, Linux Shell
- IOT-Arduino/ESP8266/Raspberry Pi Programming.
- Tools/Framework: **Apache Spark**, Tensorflow (for Machine Learning), OpenCV, Oracle Business Intelligence
- Middleware: Oracle Middleware (WebLogic), Apache WebServer
- Database: Oracle Database, Microsoft SQL Server, MySQL, MongoDB
- Operating Systems: Linux (RedHat, Oracle), Windows Server, Mac OSx

Work Experience

Part-Time Work

Phoenix Sat, NASA, Arizona State University

Dec 2018-till date

- Developed ASU's first ever Cubesat designed to study urban heat islands.
- Deployment into orbit due later this year aboard the International Space Station
- Develop libraries in C to provide an autonomous and stable platform for the spacecraft.
- Visit <http://phxcubesat.asu.edu/team> for more details on the project/team. News articles on LinkedIn page.

Research/Course Projects

Reinforcement Learning to play AI Gym - RaceCar-v0, Arizona State University

Jan 2019 - Apr 2019

- Trained an agent to drive around the car at the maximum speed
- Implemented Deep Q-Network algorithm using Python, Tensorflow

Loan Application Management System - Arizona State University

Jan 2019 - Apr 2019

- Designed to provide a platform for aspiring students to easily obtain an education loan.
- Developed the application using MSSQL Server, MongoDB cluster, NodeJS and JQuery hosting on AWS.

RFID Hardware Demonstration (for extra credits), Arizona State University

Jan 2019 - Apr 2019

- Demonstrated in-class the implementation of Mifare RC522 chip.
- Implemented SHA256 (OpenSSL) encryption for secure authentication.

Object Detection using Convolutional Neural Networks, Arizona State University

Sep 2018 - Dec 2018

- Use of OpenCV to capture screen and pass to ML library
- Implemented Long Short Term Memory (LSTM) and Recurrent Neural Networks (RNN) for decision making.
- Leveraged GPU processing to increase processing efficiency by almost 60 times.

Graduate Student Mentor, NASA Capstone Project, ASU NASA

Sep 2018 - Dec 2018

- Supervise Team of Undergraduate developers
- Design and build a web-based 3D Asteroid Viewer using Python and Blender API

Student Data Analytics and Prediction, Arizona State University

Aug 2018 - Dec 2018

- Evaluate project feasibility from a Operational, Technical and Schedule standpoint
- Develop Neural Networks (Regression Analysis) using **Scala on Apache Spark**
- Implemented front end using Django hosted on Heroku Apps.

Positions Held

Social Co-ordinator, Sun Devil Space Laboratory, Arizona State University

Apr 2019 - till date

- Responsibilities include planning how to promote the organization
- Coordinating with professors/researchers from various schools to organize scientific talks related to space exploration. This is in part with the School of Earth and Space Exploration.

Professional Experience

TATA Consultancy Services

Sep 2011 - Jul 2018

Project Technical Lead

Dec 2017 – Jul 2018

TATA Projects Limited, **Hyderabad, India (Off-shore)**

- Plan and implement solution that required realtime integration and delivery of BI Reports.
- Coordinate Team of Java API developers, Database Administrators, BI Specialists and Project Stakeholders
- Develop custom scripts in JAVA and PL/SQL that enabled quick read and write off integration data.
- Manage customer and stakeholder expectations.

Project Technical Lead

Apr 2017 – Nov 2017

Saudi Telecom, **Riyadh, Saudi Arabia (On-site)**

- Designing proposed solution integrating the systems using Database Change Notification (DCN)
- *Saved over 20 man hours per week* by the use of DCN along with Java Messaging Service (JMS)
- Coordinating between off-shore team from various modules like EBS, EPPM and BPM
- Tuning database (Oracle 12c) and server (Oracle Linux) to meet the requirements of the customer.

Technical Lead

Mar 2016 – Mar 2017

Telekom Malaysia, **Kuala Lumpur, Malaysia (On-site)**

- **Awarded** with "Star Performer Award" for exceptional project execution and customer relationship.
- Developed automated reporting system integrating various ERP implementations with OBIEE.
- Moderating weekly customer meeting and conducting training sessions for the Business users.