

Dwarakanath Varunkumar A

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Summary

IoT Developer having 30 months of professional experience in IoT Design and Development and involved in Data modelling, Mashups development, Device connectivity with ThingWorx, Installing and upgrading. Experienced in design, development, analysis, UI design, Industry 4.0 (IIoT) communication, ThingWorx and cloud Technologies, Presale and client Technical interaction. I have total experience of 58 months. Successfully Implemented various IoT Applications using Thingworx, AWS, Azure. Proficient in developing CI/CD Pipelines in IoT Applications. Experience with Python Flask, Tensor Flow, Keras, JavaScript and I have hands on with Azure IoT, RPA-Blue Prism and Python Flask framework.

Skill Highlights

- Having experience in End to End Thingworx IOT Application Development.
- Having experience in Thingworx Analytics.
- Sound Knowledge on AWS IOT Platform-(Lambda, s3bucket, EC2), Azure (IoT hub, IoT Central, steam analytics, Functions)
- Having experience on Object detection in Tensor Flow 1.x, Keras, Opencv & RNN –LSTM predictive maintenance for industrial pump.
- Having experience with building solutions using python frameworks like – Pyqt5, pySpark, Numpy, Pandas, Matplotlib, Seaborn, Boto3, Paho-MQTT, pyLoRa, PyMySQL, ssd1306 etc.
- Experience in Customer facing and Consulting roles.
- Sound knowledge on Influx DB, Timescale DB, with Grafana visualization.
- Developed End to End IoT Solution in various vertical domains like Manufacturing Sector, Energy Utilities & Medical Sector.
- Developed End to end Asset management solution using Passive RFID Readers and tags. Hands on experience in customizing Zebra RFID reader application.
- Having experience in developing IoT Solutions using related Technologies like Always On Protocol, Edge Micro Server, Kafka, MQTT, CoAP and RESTful Services.
- Good Knowledge in various IoT Communication standards like BLE 5.0, LORA, Wi-Fi and NB IOT etc.
- Hands on experience in implementing solutions using development boards like Raspberry pi, Arduino Uno, Nano, Mega, STM, Beagle Bone.

Areas of Expertise

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|--------------------|--|
| • IoT Applications | • Agile Practitioner |
| • Thingworx | • JavaScript |
| • AWS IoT | • Oracle Cloud platform Certified. |
| • Python 3 | • AI/ML- Object detection, Prediction. |
| • Azure IoT | • Embedded C |

Experience

Consultant IIoT

Deloitte India , Chennai, India

Feb 2020 -Till date

- Having experience in End to End Thingworx IOT Application Development.
- Hands on experience in AWS IOT Platform-(Lambda, s3bucket, EC2), Azure (IoT hub, IoT Central, steam analytics, Functions)
- Hands on experience in Influx DB, Timescale DB, with Grafana visualization.
- Experience in Customer facing and Consulting roles.

Senior Engineer IIoT

Redeem Systems Private Limited Bengaluru, Karnataka, India

Sep 2018 – Feb 2020

- Thingworx, Python3, Tensor Flow (1.x.), Keras, PyQT5, Flask, MQTT, Rest API, RFID, C#, .NET, SQL DB, HTML,CSS.
- Experienced in Pre-Sales Documentation and estimation of Project Timeline and cost estimation.
- Hands on Experienced in AR / VR based application development and integration in to the solution.
- Involved in bidding activity and customer interaction and technical briefing about the customer solution.
- Knowledge on Cloud Based application design and development (Azure), and Creating Kubernetes, Micro Services, Block Chain IoT.

Internship

Maxbyte Technologies Coimbatore, Tamil Nadu, India

Aug 2017 – May 2018

- Pump Design Process, Predictive analytics Algorithms in R Software, Python, Thingworx.
- IIoT Connectivity, Dashboard (UI, UX design) for Industry 4.0 and Augmented Reality Enabling.

Engineer in Training

MS GLOBAL AUTOMOTIVE PVT LTD, Chennai, India

Nov 2015 – Aug 2016

- Based on customer's requirement new Production plan is formulated, PPAP.
- Handling and ensuring the correctness of production and quality reports.
- Product line optimization.
- Handled Team of 85+ members.
- Line In-charge (Deputed in MSGI).

Assembly line Supervisor

Contract(MSGI) Daimler campus , Chennai, India

Jun 2014 – Nov 2015

- Line In-charge (Deputed in MSGI).
- Production line supervising and Supporting operators to achieve target in terms of quality and quantity.

Education

PSG College of Technology

Master's Degree **PRODUCT DESIGN AND COMMERCE** 2016 – 2018

- Development of Predictive Maintenance(PM) framework for Industrial Fluid System. Thingworx, Tensor Flow (1.x.), Keras
- Service and Maintenance System using Aras PLM
- Designing of Multi Terrain Trolley Bag (2017)

S.A Engineering College

Bachelor's Degree **Mechanical Engineering** 2010 – 2014

Activities and Societies: ROBOTICS CLUB

- Performance Analysis of Automobile Radiator by using Nanofluid based Coolant
- Design and development of MAGNETIC HYRAULIC TURBINE
- Prototyping Robotic Arm with muti- terrain vehicle

Certifications

1. FUNDAMENTALS OF IOT DEVELOPMENT WITH THINGWORX
2. Oracle Cloud Computing
3. Master Diploma in Automotive design.
4. Completed robotic course in Carnegie Mellon University through distance education.

Programming Languages: **JavaScript, Python 3 ,HTML5, PHP OOP, CSS, SQL, MySQL, Embedded C**
Simulation/ Rendering : **Autodesk 3ds Max, Unity 3D,Vuforia**

Projects:

Personal Projects

Service and Maintenance System using Aras PLM	05/2018 – 08/2018
Accreditation Process Digitization using Aras PLM for Education System	05/2018 – 06/2018
Designing of Multi Terrain Trolley Bag	2017

Professional Projects

1. Smart Grid solution

Substation Monitoring System, Transformer Monitoring System, Peak Load management, Meter Data Management, Meter GIS Information, Energy Audit System

Roles: Development of backed logic and Algorithmic flow for the application functionality, created REST API and MQTT communication, Project coordination, Requirement gathering and team management.

2. Digital transformation of Manufacturing unit inventory management

The proposed model was Using RFID based solution for Asset management using Web Technologies.

Roles: Development of web-based communication and Hardware Interactions, project coordination.

3. Commercial - Refrigeration Monitoring and Controlling

The proposed model was using Refrigeration monitoring device which is designed and developed in house which will tap the Real time data using Rest API call, and Will be visualized using web application and android application.

Role: Over all solution architect, Design and development of device, interaction between hardware and web application development, web application UI design, Requirement gathering and team management.

4. Fleet management system

Monitoring and calculating overall efficiency and cost calculation.

Role: Overall Project coordination, web application UI design and development.

5. Windmill Monitoring and alert creation

The proposed model was Using Web based governing methodology and alert triggering in case of any emergency. **Role:** Over all solution architect, web application UI design and development.

6. Digital transformation of Manufacturing unit VMC and CNC machinery

The proposed model was Using Web based governing methodology and alert triggering in case of any emergency. Calculating OEE and time etc.,

Role: Over all solution architect, web application UI design and development, Interaction with legacy machine and developed web application for computing and visualization

7. Smart Device monitoring

The proposed model was using plug and play monitoring device which is designed and developed in house which will tap the Real time data of power consumption and duration of consumption, using WiFi technology and MQTT protocol data transfer occurs, visualized and dashboard is done in web application and android application.

Role: Solution architect, web application UI design and development of web application and hard ware communication.

8. Development of Predictive Maintenance (PM)framework for Industrial Fluid System

PM is designed and deployed for fluid system using machine learning and reliability techniques. Time to failure is obtained. **Role:** Design and development

Implant Training and workshop

Ford India Pvt Ltd- Chennai	Gained knowledge about process planning and production flow process in manufacturing of ford fiesta and varying quality standard.
Fenner India Pvt Ltd - Chennai	Gained knowledge about process optimization and supply chain management.
PACE Lab, PSG College of Technology -Coimbatore	Attended lecture on Teamcenter PLM and used PLM software in PACE Lab. Used Teamcenter framework and modules in it.

Yours Truly,
A. DWARAKANATH VARUNKUMAR