

BELAL QUAMAR

EMBEDDED SOFTWARE ENGINEER

PERSONAL INFO

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GIT

<https://github.com/BelalQuamar>

CERTIFICATION

**EMC Associate—Information
Storage and Management-
2016**

**Pursuing AWS certified Solu-
tions Architect**

EDUCATION

MASc ECE

Fall 2022– Present

**Research focused on
FPGA's**

**Integral University,
Lucknow, U.P.**

*Bachelor of Technol-
ogy (Computers),
2016*

IELTS– 7.5

**L/R/W/S –
8.5/7.5/6.5/8**

GRE—301

V/Q/A – 144/157/4.0

**GATE 2016—
qualified**

Work Experience

**Nov 2016 - August 2022: D.K InfoSolutions Lucknow as a Software
Developer working on the following technologies-**

Worked as a Team Lead and single point of contact for the following
project

- Learning Management System (LMS) development based on PHP, MySQL and Ubuntu Server on digitalocean VM's along with MOO-DLE framework.
- HRMS portal based on PHP MySQL and Android.
- Application Containerization using docker and Kubernetes along with deployment of a large Kubernetes cluster
- Application migration from asp .net to php framework including web apps email etc.
- Php native applications for in house resource management within an organization
- E-commerce website using CodeIgniter.
- System admin for looking over remote servers

Hardware Projects

- Web based Greenhouse controller using raspberry pi
- IoT based load cell to view data over the internet
- Bike monitoring and control system
- Factory Automation and monitoring system
- Infrared Remote based on ESP with AI integration using Alexa
- Attendance management using RFID
- Clocks with an all-time sync via GPS
- Water supply management and monitoring at an IIT using ultrasonic sensors
- Car Automation using CAN Bus
- PCB development using EAGLE and Fritzing as well as etching using chemicals
- 3d printing and modelling using AutoCAD and Ender 3
- Robotic hand and conveyor belt mechanism prototype for airport baggage management
- Mesh Networking Implementation in ESP devices
- Development of a mesh-based Rx Tx for a UAV.
- Development of a car safety module with on board sensors and cellular integration
- Smart home deployment along with development of in-house smart lights based on ESP (work under progress)
- An automatic hand sanitizer dispenser with WiFi capabilities to alert staff when of its status

Content Creation

- Developed a 12 session course over IOT for professionals in partnership with Aptech
- A free of cost course over Arduino for school children to be delivered to Gov of A.P.

SKILLS**Embedded Tools**

VS Code
 PlatformIO
 Arduino IDE
 RTOS
 Linux
 ESP8266/32
 TI MSP
 ATmega
 Arduino
 RaspBerry Pi
 CURA
 AutoDesk Fusion 360(PCB)
 EasyEDA

Software Skills

MySQL
 GIT
 Docker
 Kubernetes
 R
 Tableau
 Ubuntu Server
 AWS lightsail
 AWS lambda
 AWS EC2
 nginx
 REST
 PHP
 MOODLE

Social Work

- Worked as volunteer and analyst towards development of a common laboratory set up for schools and ITI's at ITDA K.R Puram Andhra Pradesh along with Prof M.R.K Maringanti and Prof Bapuji Maringanti. In Association with Gov of Andhra Pradesh.
- Analyzed the shortcomings of the current set up and presented ideas to enhance the same and bridge gaps wherever possible.
- Design of a lab for all schools with 900 student/day capacity
- Present innovative ideas among students based on embedded electronics to enhance students interests in science at school level.
- Set up a Learning management system at a tribal girl's school.

Jun 2015-Nov 2016: Freelancer on the following projects

Electronics Projects based on the following

- Home Automation using ESP devices and mobile app
- In house integration based on Indian set up of devices

Web Applications based on the following

- WordPress applications for user profiles
- E-commerce based on WooCommerce, Prestashop and Magento

Trainings

- Gave a 5 day workshop on PCB design to 200 faculty members of orchid engg college Maharashtra using autodesk fusion 360 in partnership with AUTODESK
- Mentored 3 students from IIIT Lucknow on developing an IoT cloud including server backend and hardware design on ESP8266
- Attended a 5 day Industrial Training on R and data analytics
- Summer training on "Web and embedded applications using ASP.NET and C#".

College Projects

- Final Year Project on "Tiger Identification through Image Processing" using MATLAB.
- Worked as Student Associate at Software Development Cell Integral University for the session 2014-16 and developed the college Website using ASP.NET, C# and SQL SERVER.

Workshops Conferences & Seminars

- Attended and Coordinated the International Conference on Advancement in Computer Engineering and Information Technology
- Attended various workshops on "Programming on P.I.C", "Android App Development", "Arm Controlled Robotics", "Oracle Workforce Development" program, and "Hybrid Android Development with HTML5 Responsive Templates".
- Attended seminars on "Cyber Threats to Digital World", "Green Tech", & "Social Entrepreneurship".

Academic & Extracurricular Activities

Presented a Seminar on "git" at Integral University Lucknow.

Presented a Technical Paper on "Internet of Things", at FIESTA-2014 Integral University.

Fields**of****Interest**

Electronics, Computer Programming, Psychology and Coin Collection.