

ASHISH KURIAN THOMAS

aktsbot.in

TC 50/860, Madhuramcheril Sharon
Aramada P.O, Thrikkannapuram
Trivandrum – 695032

+91 9496064811
box.ashishk@gmail.com

Programmer // Sys-Net Engineer // Full Stack Web Dev

Production Engineer with 13 months of experience in designing, developing & deploying production ready web-platform architectures. Proven ability in optimizing application design – speed & accuracy of data retrieval, work-flow efficiencies and training of newcomers.

PROFESSIONAL EXPERIENCE

- **Ultimate Business Solutions Pvt Ltd (2015 – present)** *Vazhuthacaud, Trivandrum*
 - Production Engineer
 - Billionsale** – *billionsale.com*
 - Writing back-end C++ code for application along with making organized libraries.
 - Followed Scrum agile development methodology in development.
 - Creating shell scripts for aiding in development and administration.
 - Compiling and deploying tweaked version of opensource tools for project needs.
 - Managing database instances, server nodes and also contribute in designing scalable, distributed database architecture both in development and administration side.
 - Finding and testing out tools to make workflow smoother and more efficient.
 - Created and maintains a simple unit test utility written in pure BASH for API page testing.
 - Made and currently maintains a custom linux distribution for developer machine installs.

PROJECTS

- **Prophetic Lighting – College Project**
 - A context-aware notification system, implemented on a raspberry-pi + arduino using a LAMP stack.
 - Notifications are changes in the lighting of a room i.e.. *red = bad outcome, bright red = extremely bad and so on (5 colors)*.
- **boXbuntu** - <https://sourceforge.net/projects/boxbuntu/>
 - A simple, minimalistic distribution of ubuntu that uses very few computer resources to run and do tasks.

EDUCATION

- **B.E Computer Science & Engineering – 8.2 c.g.p.a**
Udaya School of Enginnering – *Nagercoil, Tamil Nadu*
Anna University, Chennai
- **XII – 7.6 g.p.a**
St. Mary's Residential Central School – *Trivandrum, Kerala*
C.B.S.E

TOOL CHAIN

Lang : C / C++, HTML + CSS + JS, Bash, Python
Tools : git, bash/zsh, nodejs, nginx, mysql / mariadb, vim

PROJECT BILLIONSALE

Summary:

A fast & lean e-commerce platform with added provision for bulk/wholesale business, built to run on relatively inexpensive hardware, implemented with C++ - MariaDB – (pure HTML5, CSS and Javascript).

Tasks Performed:

Backend Development:

- Designed structured flow for all 3 types of programs based on general tasks they did, with minimal SLOC as possible for easy maintenance.
- Wrote and maintains the technical documentation in regards to the project's stack architecture.
- Helped team in designing database tables, which require minimal overhead from the DBMS's side, following best practises.
- Created & maintains the C++ style guide and barebones page source used thorough out the project.
- Replaced libjson with rapidjson as the JSON library for all API and HTML output programs and made a standardized frame for JSON output functions.
- Rudimentary relational data operation design and implementation with data in REDIS cache.
- Made a refined and minimal toolkit for C++ development which includes g++, compile.sh - a rudimentary GNU Make replacement, librapidjson, libhiredis, libcurl and libmariadbclient.
- Minimized developer task-context switching by introducing a tiling window manager(i3wm) into the development work flow.
- Wrote an Image Server Implementation for all modules used in the project that allows for roll-backs incase of errors.

Production Engineering:

- Created a modularized NGINX configuration for all sub-domains under *billionsale.com*.
- Creating and maintaining separately compiled binaries of applications in the stack with various compilation flags turned on for production deployment.
- Server and Database tuning for application performance(throughput) and high availability.
- Configured Mariadb cluster for database backups and auto-switching in Master-Slave mode.
- Wrote and maintains a unit test tool in BASH for veriyng page outputs which makes a csv file as test report.
- Deployed headless VM installs of team productivity suites - forums, chat and git server.
- Created scripts for automatic relaunch of programs when and if they die. Also wrote small utilities in BASH for bringing the entire programs and services that make up *billionsale.com*, online after an unplanned reboot of server machine.
- Performed security hardening of all production machines.
- Created scripts for dummy data population of database tables and REDIS datastores during application testing and development. Also made scripts that aid in creating databases and tables in MariaDB.
