MUHAMMAD BILAL KHATRI

SR. MEAN/MERN STACK DEVELOPER / LEAD JS DEV.

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ABOUT ME

I am MEAN Stack Developer, Full Stack Javascript Developer and DevOps Engineer. I have also good knowledge of python in data science filed with most of the famous libraries like Tensorflow, keras, pandas, numpy, matplotlib. I also worked in Python web framework like Flask and Jinja2.

*"I have created the **boilerplates** for Angular and NodeJS Application using babel transpilation I have also automate the testing of APIs and Application in NodeJS and AngularJS using **Chai and Mocha**."*

I have experience working as part of a team or individual. I am always energetic and eager to learn new skills. I work with the team to provide imaginative solutions.

I have also good interest in Data Science and Research. I have also worked in research on different algorithms like Deep Learning, topic modeling, SVM etc.

EXPERTISE

NodeJS   ● ● ● ● ● ○

Express JS   ● ● ● ● ● ○

Angular 5+   ● ● ● ● ● ○

WORK EXPERIENCE

Lead Full Stack Javascript Developer (April 2020 > Present)
Livewire Labs

PROJECT PLANNING:

- Creating the technical document represents project overview and detailed structure.
- Modeling the project diagrammatic representation and creating use cases.
- Responsible of creating and managing ERD, project timeline, project specification document and user story document.
- Using agile methodology my responsibility is to creating the project backlog and assigning the scrum meeting with project manager.
- Taking daily report from developers under my leadership.
- Managing and versioning the application using GIT.

BACKEND DEVELOPMENT:

- Restfull APIs using Express, mysql/mysql2 and mongodb.
- Building NodeJS microservices and api gateway.
- Integrating third party plugins to NodeJS API.
- Secure APIs for multiple roles using authentication and user verification using email and OTP with FCM (Firebase cloud messaging).
- Versioning the APIs for modification record.
- Managing and assisting the backend developers.

FRONTEND DEVELOPMENT:

- Creating application using Angular with famous libraries and plugins like NGINX, Bootstrap, Material Design etc.
- Creating application using React Redux and Formik.
- Assisting the employees to work on the front end development.

Skills

Skill	
Python	●●●●
HTML/CSS/MD/BS	●●●●●●
React	●●●●
Text Mining	●●●●
Oracle	●●
Software Engineering	●●●●
Deployment Firebase/Heroku	●●●●●
Deep Learning	●●●●
Trello	●●●●●

ACHIEVEMENT

BEST Final Year Project AWARD

From - IU Project Expo and Startup 2019

Project – Research Based Automatic Bug Analyzer.

Description – Machine Learning Research using classical (unsupervised) and modern (supervised) approaches.

MOBILE END DEVELOPMENT:

- Converting Wireframe to Mobile application structure using react-native and react-native-elements.
- Integrating and managing data and states using redux.

DEPLOYMENT DEVELOPMENT:

- Managing Domain and hosting of multiple projects.
- Deployment of API's on Heroku server.
- Deployment of Web Portal and Websites on Firebase Domain.
- Deployment of Web Portal, Sites and API's on EC2 AWS using npm and nginx with pm2 (process management).
- Project Management Using Trello.

MEAN Stack Developer (May 2019 > Apr 2020)
Livewire Labs

BACK END / DATABASE DEVELOPMENT
- Creating Backend RESTFull API's using ExpressJS and mysql/mysql2 with sequalize database architecture schema.
- Optimization of the large queries for quick response in API's
- Integration of the Email Notifications and Authentication Sending Module using Nodemailer with very popular NodeJS Template Engine EJS (Embedded Javascript) for Email Template to send.
- Creating the upload feature for Images, Videos and Files and integrated it with Amazon Cloud S3 for persistency or mounting the file on client`s dedicated server.
- Testing Using Chai and Mocha.
- Third Party payment gateway authentication using Stripe.

FRONT END DEVELOPMENT
- Creating the Dynamic Content Component and View Components which handled by controller component.
- Conversion of the Custom HTML Template to Angular Reusable components with two-way binding properties.
- Creating The analytical Data Representation modules for portal.
- Working on angular validation and form controls.
- Working on angular google geocoding and autocomplete api's.
- Working Experience of Material Design, Ngx and NgBootstrap Modules.
- Integration of the firebase authentication with app.
- Currently Creating the portal of Vendor Subscription in React JS and Context.

EDUCATION

<u>BS (Computer Science) (4 YEARS)</u>
<u>(Aug 2015 – Jul 2019)</u>
IQRA University
- Cleared with CGPA 3.2

<u>Artificial Intelligence (1 YEAR)</u>
<u>(Nov 2017 – Nov 2018)</u>
Sir Syed University

RESEARCH

<u>AUTOMATIC BUG</u>
<u>TRIAGING/ASSIGNMENT USING DEEP</u>
<u>LEARNING AND TOPIC MODELING</u>

Research in IQRA UNIVSERSITY
(FINALY YEAR PROJECT)

<u>Key Accomplishment:</u>
This is comparison between Modern i.e
Deep Learning RNN and Classical
Approach i.e Topic Modeling LDA
(Latent Dirichlet Allocation) that which
one is assigning the bug accurately and
less time consuming.

<u>DEPLOYMENT</u>
- Deployment of API's on Heroku server.
- Deployment of Web Portal and Websites on Firebase Domain.
- Deployment of Web Portal, Sites and API's on EC2 AWS using npm and nginx with pm2 (process management).
- Project Management Using Trello.

Software Engineer cum MEAN Stack Developer
(June 2018 > May 2019)
Vectracom PVT Ltd.

<u>BACK END / DATABASE DEVELOPMENT</u>
- Creating the well architectural database schema of MongoDB in Node.js using Mongoose library and relational database schema of mysql in Nodejs using sequelize.
- Creating the RESTfull API's and Services that connect the client using backend RSS and JSON.
- Creating the portal on EJS (Embedded Javascript) template engine with Node.js.
- Address and improve any technical issues.

<u>FRONT END DEVELOPMENT</u>
- Creating the front end in angular 5+ with reusable separated components.
- Working Experience on Material Design angular.
- Creating front end in EJS using Bootstrap and Materialize css libraries.

<u>ANDROID/IOS DEVELOPMENT</u>
- Creating the android and ios Application in IONIC 4 framework.
- Creating the PWA (Progressive Web Application) on IONIC 4 with Angular 7 using Latest Javascript Plugins of Audios Videos and Chatting.

<u>DEPLOYMENT</u>
- Experience of Deployment of Application and portal on server, docker and on firebase/heroku domain.

<u>SERVER SIDE DEVELOPMENT</u>
- Experience of working on live server.
- Handling the Server Scripts written in javascript, python, perl and php.
- Write Core parts of the solutions.

Head of IT Department (August 2017 > PRESENT)
The Future Academy

- Managing IT Department, creating the attractive course content, managing IT staff, teaching the courses of web development and software development,
- Conducting workshops and seminars.
- Collaboration with another IT institutes..

Executive Developer (May 2017 > August 2017)
Cyber Freak Solutions

- Creating the Company Based Desktop Software and Web Application on Script Case.
- Creating the database schema and Handling the database on large scale of organization.
- Making the diagrams for requirement specifications and design patterns.
- Creating the Websites on wordpress CMS using different plugins and themes. Migration of wordpress websites on another server

Internee Software Developer (Feb 2017 > May 2017)
Cyber Freak Solutions

- Application Development of POS (Point of Sales) System using Script Case.
- Database Structural implementation for Management system on MySQL Queries.

Computer Operator cum Data Entry Operator (Feb 2015 > September 2015)
Sharif & Co.

- To create petitions and letters.
- To create the bills of clients.
- Maintain the log of all bills and petitions.

Office Assistant (June 2013 > January 2015)
Commodities Trading Co.

- To make income and sales tax invoices, letters, and undertaking of customs.
- To make the bills of Pakistan navy, Pakistan army, Pakistan air force, SUPARCO.
- Pakistan and Utility Stores Corporation of Pakistan and to Make the bank quarantee.

TECHNICAL SKILLS

PROGRAMMING SKILLS

MEAN STACK
- Lead level experience of MEAN stack has become my core expertise.
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ANGULAR 5+/IONIC 4
- Fluent Experience of creating the front end with angular 5+ using components, pipes, filters, authguards and services. Creating views using css frameworks like bootstrap, ng-bootstrap, material design, materialize css. Service Worker implementation for push messages.
- Fluent experience of creating PWA application on IONIC
- Multipage application with dynamic routing.
- Extensively work on developing the REST and SOAP based Application.
- Using Social Media Authentication with Firebase and angular social auth 2.

REACT/REDUX/REACT-NATIVE
- Good experience of creating application on react with redux context as state management.
- Using Third party libraries like material design, ant design etc I have good experience of creating HOC and View Component.

NODE JS
- Creating the backend Microservices REST APIs deployed on multiple servers with mongodb connectivity and expose in JSON or RSS format.
- Use Authentication using Json Web Token JWT library and passport JS.
- Implementing the database schema using MongooseJS.

EXPRESS JS
- Creating back end application Routes and APIs on ExpressJS.

PYTHON
- Creating crud APIs Using Mongodb, mysql, etc with Flask Framework. Web Scrapping using beautifulsoap. Determined optimal business logic implementations, applying best design patterns.

PHP/PHP7
- Working on Core PHP. Connecting with mysql database and creating the crud application.

HTML5 / CSS3 / JQUERY / BOOTSTRAP / MATERIAL DESIGN
- Working on core javascript , its libraries like JQuery, Datatables. Working on CSS libraries like bootstrap, material design, materializes css.

MACHINE LEARNING SKILLS

DEEP LEARNING

- Experience of working on python tool using libraries like tensorflow, keras, pandas, numpy, matplotlib (for data visualization), scikit learn to create the deep learning model, computing the confusion matrix and tuning of the model accordingly.

TEXT MINING

- Experience of working on LDA model using python libraries GENSIM and NLTK (natural language toolkit)..

SOFTWARE ENGINEERING SKILLS

AGILE METHODOLOGY

- Working with AGILE Process and Solid Understanding of Its Phases. Scrum Process, Sprint and Backlog Management.

DESIGN PATTERN

- Solid Understanding of Design Patterns and Usage in Object Oriented as Well as Procedural Language.

PROJECTS

BREEDERS APPLICATION

CORE OBJECTIVE
This is SAAS based ERP system. The main functionality of this system is to maintaining the pets, employees, breeders(vendors) and activities on daily weekly monthly basis in systematic manners.

TECHNOLOGY
- React for web based ERP system i.e Admin Portal and Breeders Portal, and React Native for Mobile application (Android and iOS).

MY CONTRIBUTION
- I am leading this application as lead developer and project manager coordinator.

VENDOR SUBSCRIPTION/MY SUB SPOT

CORE OBJECTIVE
This is SAAS based system. The main functionalities of this system is to subscribe the packages of pet i.e food package, daily routine package etc on monthly and daily basis. There are some vendors that provide package to end consumer and user subscribe that package for its pet.

TECHNOLOGY
- Angular 8 and upgraded to angular 9 which is used as front end admin and vendor portal. NodeJS and MySQL is used with Stripe and paypal integration.

MY CONTRIBUTION
- I have created the whole SAAS based system including front end and backend as well as deployment.

- Deployment on heroku and firebase for testing and amazon cloud for live.

FIND A MUSLIM

CORE OBJECTIVE
This is web and mobile based application which can find the businesses like restaurants, barbers etc exactly near you. It can be provide information of any business on your entered location.
Link: http://findamuslim.com/

TECHNOLOGY
- It is created on Angular 8, NodeJs and MySql with firebase authentication.

MY CONTRIBUTION
- I have created its Front End Using Angular 8, Bootstrap 3.
- Created Portal Using Angular 8 and Ng-Bootstrap i.e Bootstrap 4. Modular programming encountered for Admin and Sub-Admin.
- Created Its Backend Rest API's in NodeJS which is used in Web, Portal, Android and IOS Applications. Also created Structural Database in Mysql.
- Social Authentication of google and facebook using Firebase.
- Deployment of API's on Heroku and Application/Portal on Firebase for Staging or development.
- Deployment of API's, App and portal on Client SSH Server using pm2 and nginx.
- Continuous Version Controlling using Git.
- Sharing the API's using Postman Collection and Apiary Oracle.
- Project Management using Trello.

JAZZ POWERTOOLS

CORE OBJECTIVE
This is progressive web application that provide online weather, cricket, latest live cricket scores, latest news, horoscope, prayer times, quran, urdu contents/news etc services.
Link: https://www.jazz.com.pk/prepaid/jazz-power-tools/

TECHNOLOGY
- It is created on IONIC 4 with REST API's on NodeJS as a Microservices.

MY CONTRIBUTION
- Created Front End Using IONIC 4 with Lazy Loading of sliders that fetch data from Rest API's in Defined Packets.
- Created Weather and Stock Exchange API's Using PHP and NodeJS.
- Deployment of Project in Firebase.
- Continuous Version Controlling using Git.

ENTERPRISE MANAGEMENT SYSTEM

CORE OBJECTIVE

It is created for Faysal Bank, Dubai Islamic Bank, Bank Al Habib and Karachi Stock Exchange This is push message management and mobile portability system that display the push messages count i.e PULL, PULL, Broadcast in graphical representation and generate its invoice of the whole month. We can add mobile number for conversion of network.

TECHNOLOGY

- Created on EJS (Embedded Javascript), Node JS and Backend Services in PHP.

MY CONTRIBUTION

- I have created Front end on EJS (Embedded Javascript) Engine Using Materialize CSS.
- Created NodeJS as backend for EJS template Engine.
- Created MongoDB as a Database Layer and used it with NodeJS in Schematic Form using Mongoose.

STORES MANAGEMENT SYSTEM

CORE OBJECTIVE

This is Web based application that keep track the items placed in store. It can generate Purchase order and Invoices. User can find Item in its allocated location.

TECHNOLOGY

- Using Scriptcase CMS, PHP, Javascript and Ajax Loader.

MY CONTRIBUTION

- I have created the whole system using Scriptcase with custom PHP scripts and Database in mysql.

IMAGE VIEWER JAVA

CORE OBJECTIVE

This is Desktop Application to view the images in gallery.

TECHNOLOGY

- Using Java Swing and Doubly Circular Linked List.