# Muhammad Zia Shahid

### Software Engineer

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#### **EDUCATION**

National University of Computer and Emerging Sciences (FAST-NU), Lahore — BS Computer Science 2018 - 2022

KIPS College, Kasur — FSC (Pre Engineering) 2016 - 2018

#### **EXPERIENCE**

### **Next Frontier Labs (Software House),** DHA Lahore — Software Engineer (Ruby on Rails)

August 2022 - PRESENT

Working as a Full Stack Software Engineer , Designing and implementing the Backend for various Applications and developing multiple websites using Ruby on Rails . Working on all modules by using the latest concepts of Rails-7 includes Turbo ,Gems, Action Mailer , Routes , Controller and Models.

- Routing in Rails
- Full Stack Web Development
- ActionMailer
- Stripe Integration
- REST API Development
- Designing CRUD across different Controllers
- Gems
- UI Fixes and Test Cases
- Database Modeling and migrations
- Rails 7
- Emailing and authentications
- Live project American motors Car {https://northamericanmotorcar.com/}
- Live project Nucleus Design for the Broker and vendors for managing their policies across USA
- Turbo Frames and Streams
- PolarView Components

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#### **SKILLS**

Ruby on Rails Full Stack Web development **REST API Development** Rails-7 Turbo Frames, Streams Software Development **IOS Mobile Application** Development Swift Nodejs Python Blockchain Solidity **Compiler Construction Data Structures Operating Systems** Algorithms

#### LANGUAGES

ENGLISH

URDU

#### **CodingPixel (Software House),** Johar Town Lahore— Software Engineer (*IOS*)

#### March 2022 - August 2022

Worked on developing various IPhone Applications i.e Pilot Buddy IOS Application for Pilots that can communicate with each other across the globe and also working on various other Applications and their integrations with cocoapods.

- UI Designing of Pilot Buddy Application
- REST API Integrations
- CoreData
- Animations
- MVVM Architecture
- MVC Architecture
- Cocoapods Integration
- SOLID Principles
- Chats Module
- Stripe Integration
- Google Maps Integration
- Audio Video Player
- Live Project of Pilot Buddy
- Data Modelling and integrations

#### PROJECTS

#### Northern American Motor CARS (Live Project Did for Next Frontier Labs Software House) — Full Stack Web Development

- Routing in Rails
- Full Stack Web Development
- ActionMailer
- Stripe Integration
- REST API Development
- Designing CRUD across different Controllers
- Gems
- UI Fixes and Test Cases
- Database Modeling and migrations
- Emailing and authentications
- Live project American motors Car
- <u>https://northamericanmotorcar.com</u>
- That is product that is design for the northern american motor cars US for growing their bussiness and managing their clients .

#### NUCLEUS Software for Broker and Vendors managing their health policies across USA (In Progress Live Project Doing for Next Frontier Labs) — Full Stack Web Development

• Routing in Rails

- Rails 7
- Full Stack Web Development
- ActionMailer
- Turbo Frames
- Turbo Streams
- Designing and Managing CRUD across different Controllers
- Gems
- Database Modeling and migrations
- Emailing and authentications
- That is the product that is design for managing the health policies for the vendors and brokers across US.

#### BLOG APP API's for Users So that have the features of Social Media Platforms — Backend Api's Development

- Routing in Rails
- Rails 7
- GRAPE GEM
- GRAPE SWAGGER GEM
- Serializer
- Architecture of Backend Development
- Devise Gem for Authentication
- Designing and Managing CRUD
- Gems
- Database Modeling and migrations
- Emailing and authentications
- That is the product that is design for managing Posts and their Comments

#### **Pilot Buddy (Live Project Did for CodingPixel Software House)** -Leading IOS Team for that Project— IOS Application Development

- UI Management
- Architectural design for that Application
- Api Integrations
- Cocoapods
- UI Testing
- Maps
- CoreData
- Animations
- Chats Implementation
- That is the application that has been design for the pilots that can communicate with each other during flights

#### Smart E-Mart , An IOS based Application where you can sell , buy and request everything you want (Product Based Project)— (*IOS*, *Node.js*, *Express*, *Mongodb*)

- Used Xcode and Swift for developing that application
- Used Firebase and mongodb for providing Backend services
- Used Node Js for making Rest APi's
- Bidding System

- Chat System
- Requested product system
- Wishlist for a product
- Admin Side for providing the service to users
- Creation of REST API's for Providing services to End Users
- In our Application, We provided a proper application to the seller where the seller can upload his goods, bid on the different user required products, and also talk to him about the delivery of different products that he requested. Similarly,We provided a proper application to the buyer where the buyer can place the order, request for a particular product, and also apply for the bidding onto a particular product where the buyer gets a minimum price.

## **Fariha Bakes (Freelance Project)** — (IOS, Node.js, Express, Mongodb)

- UI Designing and Development
- Architectural design for that Application
- Api Integrations
- Cocoapods
- UI Testing
- Maps
- CoreData
- Animations
- Chats Implementation
- REST APi Development
- NODEJS
- Google FireBase
- MVC
- Node Mailer
- MongoDB

#### **Optical Store Mobile Application** — (*JAVAFX*, *MySQL*, *Networks*)

- Used Xcode and Swift for developing that application
- Used Firebase and mongodb for providing Backend services
- Used Node Js for making Rest APi's
- Used Proper Development techniques as per instructed in Software Engineering
- An IOS Based Application where user can buy glasses , lens and requested new type of lens that provided to him on demand and it has the proper emailing services and server that built using node-js and I can manage the user data , order details and current state of the order.

#### Car Location System based on Internet of Things

- Used Sensors
- Used Arduino
- Used thingspeak Cloud Server
- Used Google Maps
- Used Xcode and Swift Programming Language
- An IOT based application that contains the sensors as it can connect the sensors with cars and sharing the data so that driver can locate their vehicle. It has an IOS Application where driver can see location through Google maps

and thingspeak can collect data from sensor through IDE.

#### Shopping Mall Management System using Artificial Intelligence

- Used Python
- Used Google Colab
- Used TensorFlow
- Used Regression and Various Other Libraries
- Builting a Mall Management System that can detect the customer behaviour, it's feeling, mask detection and also informing about the current stocks of the different shops of the Mall.

#### **Clash Free TimeTable Generator** — Software for University

- Used JAVAFX as frontend
- Used MYSQL as backend
- UML diagrams and Design Patterns
- A software that can generate the clashfree timetable when we can giving him the data like total rooms of university, time slots, total teachers etc. Moreover, It can also generate the excel sheets of that clashfree timetable and design using the proper techniques of the the Software Design and Analysis.

#### **Compiler Design** — For Solving Complex Problems

- Compiler for Solving the complex problems and understanding our own created programming language
- Giving him our own Language as It can understand ,analyze and giving us the output as per our syntax

#### **Flex Education Portal**

- Used .dot net framework
- Used C# , mysql
- Follow 3-tier Architecture
- Designing Database
- It is the Education portal that can manage by the university admin that he can created teachers and teachers can further manage the student data and Students can also use their website for viewing their transcripts, marks, attendance and courses.

#### Virtual File Management System

- Used C Language
- Used Linux and developing Virtual File Management System
- It is our own file system that works using distributed file system and appling some algorithms for improving the efficiency of the files and storage .

#### Dinosaur Game Based on Assembly Language

- Used 16-bit registers
- Used Dosbox , Interrupts , Video Memory , Stack etc
- Game that has hurdles using video memory and handling it user the low level

language and understanding the working of the opcodes, machine codes etc and knows that how computer actually works and understand our high level language and managing the registers.

#### Design and Development Algorithm for Reducing the Time Complexity of Searching in LinkList

- Used C++ , Pointers , Classes
- Used Tree Data Structures
- Designing the advance searching algorithm that can reduced the time of searching and improved our searching .

#### Snake and Ladder Game

- Used C++ ,file systems , Pointers , Classes and Objects
- Multiplier Game that has hurdles and user has to reached upto a level to win that game . Moreover that game also has the score system and offline management of the game state so that users start the game where they left.