Sudan, Khartoum Omdurman, Salha

### **Alzobair Mohammed**

+249100640513 alziber50@gmail.com

laitooo.vercel.com

#### **Education**

Sudan, Khartoum University of Khartoum Oct 2015 to May 2022

- Major: Civil engineering, B.S.C.
- **Programming courses:** Computer programming basics, Applications of programming in civil engineering using Fortran.
- **Graduation project:** Prediction of concrete compressive strength using Artificial neural networks.

#### **Employment**

Software developer Fekra Dec 2021 until now

Shrek: Service providing customer mobile app using Flutter (Dart) and Firebase.

- Worked with a team of 5 and was in charge of collaborating with the UI/UX team to ensure that our design was error free.
- Developed 3 methods for booking services which are by ordering the service, in-chat offers and by Booking a service.
- Improved the app security by implementing Firebase security roles with unit tests.
- Implemented cloud functions for aggregation operations on orders and status tracking for orders that allowed the tracking of sales and viewing statistics of operations.
- Configured the app to be able to use 2 languages (English and Arabic).
- <u>Leveraged knowledge</u> in Git, Flutter mobile apps using Dart and Firebase using typescript and Node.js.

Sogia: Water donation mobile app using Flutter (Dart) and Firebase.

- Implemented google map to show donation positions.
- Developed New scheduled method for creating a donation water order.
- Leveraged knowledge in Git, Flutter mobile apps using Dart.

# Software developer Exit:Fund Nov 2020 to Dec 2021 Beem: Virtual doctor visits mobile app using Flutter (Dart) and Firebase (Google Play).

- Updated app UI to reach pixel-perfect design and improved visuals.
- Improved the chat experience of the app by fixing the file upload/download process and implementing image thumbnails.
- Participated in features recommendation and business planning.
- Introduced user tips and insights features to improve users' engagement with the app.
- Added user tracking with aggregation and analysis which helped identify problems with the app UX.
- Applied crash reporting to help identify and debug bugs in production.

Forward: Calendar with to-do list website using Flutter (Dart) and Firebase (Website).

- Worked with a team of 2 to publish this website in 2 weeks for experimental purposes.
- Configured authentication of users on the website by using Firebase authentication to implement Google sign-in and email authentication.
- Improved the user experience by implementing task groups to help the user categorize his tasks.
- <u>Leveraged knowledge</u> in Git, Flutter mobile and web apps using Dart, Firebase using typescript and node.js and MixPanel.

## Android apps developer Fekra May 2019 until Apr 2020 Simsimy: Two android apps for parental control using Java.

- Created a home launcher app that controls child access to apps and videos.
- The second app was for the parent to schedule the child's allowance time and chose what apps he can use.
- <u>Leveraged knowledge</u> in Android using Java, XML and YouTube mobile API.

#### **Software Projects**

#### Manga Online (Google Play)

- Developed an Android mobile app using Java that allows users to scrape and read Japanese comics (manga) that has 5000 downloads on Google play.
- Increased app speed and consistency by changing the network repository to use Rest API instead of scraping the manga.
- Improved app efficiency to reach 99% crash-free users by implementing crash reporting tools and fixing the bugs.
- Increased app speed by decreasing the user's requests flood by implementing a cache management system.
- Rebuilt the app in flutter using Dart to publish the IOS version.
- Programmed a manga download service that downloads the manga while the app is in the background.
- <u>Utilised:</u> Native android using Java, XML, Flutter using dart and Web scrapping.

#### **Werewolf Online**

- Developed an android mobile multi-player werewolf game using Java and XML.
- Implemented backend using JavaScript with a Node.js server with Express.
- Utilised Socket.io for handling the chat and in-game network requests.
- Improved user experience by in-game voice chat with WebRtc for peer2peer connection.
- <u>Utilised:</u> Native android using Java, XML, JavaScript, Node.js, Express, Socket.jo and WebRtc.

#### Plants vs Zombies 3d Clone (YouTube)

- Developed a simple plants vs zombies game clone in 3d with unity using C#.
- Implemented a game manager that handles the money system, zombies wave spawner and plants building utility.
- Utilised: Git, Unity and C#.

#### Prediction of compressive strength using Artificial neural network

- Led a team of 3 to develop this project, which was where I was responsible for the development part.
- Collected the data and then performed several data processing tasks including completing missing data, normalizing the data and cleansing the data.
- Developed a 7 hidden layer Artificial neural network model using Keras.
- Trained the model and got an acceptable error of 83%.
- Created a website that serves as the model's user interface and is hosted on a Node.js server.
- <u>Utilised:</u> Python, Keras, Numpy, Pandas, Google Colab, Node.js using JavaScript, Html and CSS.

#### **Events**

**EEESE 2017**: Participated in the development of a smart glove that converts hand gestures into spoken words, and worked as a presenter.

**EEESE 2018**: Led the development and the presentation of a smart voice assistant project and worked as a developer on a project that recognizes sign language and converts it to an understood language.

**EEESE 2018 Hackathon**: Awarded for 2<sup>nd</sup> place in Software development – Disabilities solutions track as a part of team Light.

**SSE problem-solving workshops**: Mentored junior programmers in the workshop.

**IndabaXSudan2019**: Attended the indaba artificial intelligence Bootcamp in Sudan.

#### Skills

**Programming languages:** Java, Dart, Python, Typescript, JavaScript, Html, Css, C#, Fortran.

**Frameworks:** Android, Arduino, Flutter, Git, Keras, Numpy, Firebase, Unity, Node.js, WebRtc, NextJs.

**Concepts:** Networking, Machine learning, Object oriented programming, Rest API, Game development.

**Soft skills:** good communication skills, Excellent time management, Fast learner, Team player, very patient and great adaptability.

#### Languages

Arabic (Native speaker), English (Very good), French (Beginner).

#### Hobbies

Travelling, language learning, reading, swimming and watching anime.

#### Links

Portfolio
Github
Google Play
Youtube