

**Haris Rafiq**  
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<https://github.com/HarisRafiq>

## Skills

**Fullstack Web:** MEAN Stack

**Networking Protocols:** TCP/IP, UDP, XMPP, MQTT

**Mobile Development:** Android, iOS, Nativescript Angular

## Work Experience

### Oct 2019- Present , Co-Founder & CTO @ School.Ink, USA.

- Designed and developed the school automation platform using MEAN Stack.
- Dedicated school hosted subdomain routing using Nginx and Lets Encrypt.
- More can be learned by enrolling in demo class @ <https://demo.school.ink>

### Sep 2016- Oct 2019 , Manager(Operations) @ Albario Engineering, Pakistan.

- Managing day to day operations of 52.8 MW GE Wind Farm at Jhimpir SITE.
- Ensuring complete balance of plant from electricity generation to transmission.
- Reporting and monitoring of the activities, concerns and maintenance.
- Coordination with the National Transmission Dispatch Center Pakistan for load balancing and support.

### 2015- 2016, Sr. Software Engineer @ ATUMIK, Pakistan.

- Developed a HTTP/HTTPS proxy tunnel based on Golang.
- Developed an app for aggregation of data from all major crypto exchanges. API integration was done in python and an app written in android.
- Developed a marketplace for connecting local painters with potential customers using Node.js, Express.js, mongodb, vue.js. It was the clone of Paintzen, a US based company.

### 2013-2015 , Research @ Power Kicks, New York, NY.

- Goal was to harvest energy from walking motion and use it to power low consumption sensors.
- Worked with Skechers in embedding the technology in their Light Up shoes.
- Lead the research for power harvesting mechanism based on Faraday's Law and Catapult Effect. The end result was a device able to oscillate linearly with no mechanical oscillator and as it oscillates able to generate low electrical power.

### 2012 - 2013, Software Developer @ Digital Ocean, New York, NY.

- Worked alongside Chief Architect and gained significant cloud computing experience.
- Wrote Server monitoring and automation scripts in Python.
- Developed an iOS app for inhouse use of remote management of physical server machines.

## Projects

Some projects can be found online at <https://github.com/HarisRafiq>

- **AirDab** - An iOS app aimed to be a complete music player with built in HTML server to load music over wifi, p2p connection to listen to any song with another person, visualizer written in OpenGL ES 2.0 and an outstanding experimental UI. The audio unit was written from scratch using C/C++ that used to analyze audio stream, run fast fourier theorem to turn time domain signal into frequency domain and perform post processing like sending data to GPU for visualization or sending data over p2p network.
- **imPlayr** - An iOS app that made into the top apps in the entertainment and music iPhone/iPad category. This app was the sequel to AirDab but had an extra amazing feature of automatically changing the whole color of the app after combining audio processing with image processing.
- **Minoes World** - An iOS/Android tetris like gameplay but using augmented reality to place objects on real world.
- **RadTwits** - A PPC Advertising Network with backend done in ASP.NET,C#,MSSql and the frontend in Javascript and HTML5. Publisher pastes generated javascript code on their webpage which used to understand the context of that page and displays relevant tweets + advertisement in an inline or rectangular widget.
- **FoodHomie** - A restaurant search engine that used to search menus of the restaurants in USA based on your location/preferences. It was written in ASP.NET,C#,XML,Javascript,MSSql.
- **Legends of Microbes (Game)** - A top down randomly generated dungeon game inspired by Binding of Isaac. Box2d and a custom engine was used for physics while libgdx and opengl for rendering graphics. Android is built using JAVA and iOS using OBJ-C.  
Preview: [https://youtu.be/\\_IRwTiftpLg](https://youtu.be/_IRwTiftpLg)  
Download : <https://play.google.com/store/apps/details?id=com.haris.lom>

## Education

**Bachelors of Computer Science, University Of Minnesota,Twin Cities,MN (2008-2010)**

**Bachelors of Electrical Engineering, City University of New York, NY (2011-2013)**

## Research Paper For Power Kicks

[https://www.academia.edu/19692856/Linear\\_Generator\\_For\\_Harvesting\\_Low\\_Frequency\\_Mechanical\\_Vibrations](https://www.academia.edu/19692856/Linear_Generator_For_Harvesting_Low_Frequency_Mechanical_Vibrations)