# Khalid Alnuaim

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**GitHub** https://github.com/kaluaim/

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Experience

#### **Software Consultant**

King Faisal Specialist Hospital and Research Centre (Remote)

#### January 2021 - Present

Led and managed a team in developing a new employee portal application for iOS and Android using React Native and Expo, overseeing task assignments, conducting regular code reviews, and ensuring adherence to platform-specific best practices and project timelines.

## Software Engineer PhD Intern

Nokia Bell Labs (Murray Hill, NJ, USA)

## June 2023 - August 2023

Architected and developed a companion app for a personal monitoring device. This app is compatible with Android and iOS using Kotlin Multiplatform. It's responsible for handling various monitoring tasks and efficiently loading and unloading machine learning models onto the device. Additionally, the app takes care of user preferences and provides a user-friendly interface for viewing and storing historical data.

## June 2022 - August 2022

Built a fully functional simulator for Nokia Environmental Monitoring (NEMo). The simulator can simulate +100 devices, and each device works independently as if working in a real-world environment. In addition, the simulator can run with different strategies: replaying previous events stored in InfluxDB, reading actual data from various APIs, or running based on descriptive profiles.

## **Software Consultant**

Saudi Authority for Intellectual Property (Remote)

## November 2019 - January 2021

Stabilized the authority's portal and optimized the performance and security. Designed and implemented in-house solutions. Provided consultation and support for other teams and developers in the authority.

### Software Engineer

# King Faisal Specialist Hospital and Research Centre (Remote) June 2018 – November 2019

Designed and implemented an administration portal for a patient gateway to efficiently manage and process patient requests, including appointment scheduling, patient complaints, and personal information updates, while integrating an Access Control List (ACL), database connections, and email/SMS notifications for automated patient engagement.

## Software Engineer Intern

## Multimedia Startups (TURBO Studios & RVEALR, New York, NY, USA) September 2017 – May 2018

Prototyped a client dashboard with a REST API back-end to enable resource management and monitoring, integrated AWS connections into internal admin tools for cloud-based operations, and improved a Spring Framework back-end system by fixing bugs and enhancing performance.

## Software Engineer

# King Faisal Specialist Hospital and Research Centre (Riyadh, KSA) November 2013 – August 2017

Developed applications for different platforms: Web applications using JavaServer Faces, console applications using Java and iOS applications using Objective-C.

## Software Engineer Intern

## King Faisal Specialist Hospital and Research Centre (Riyadh, KSA) June 2012 – August 2012

Enhanced Emergency Management System (EMS) by adding administrative features to allow the administrator to configure and set up the emergency unit.

#### Education

#### **Worcester Polytechnic Institute**

Ph.D. In Computer Science (2020 - Present)

#### Stevens Institute of Technology

M.S. In Computer Science (2017 - 2018)

#### **Imam University**

B.S. In Computer Science (2008 - 2013)

#### Projects

## Various Big Data analytics projects (PhD Research)

Developed many MapReduce jobs for massive datasets on HDFS to perform spatial join, detecting outlier based on distance, and performing K-Means clustering. Also developed many Spark workflows to perform indexing of high relative density of grid cells, generating the Frequent Pattern Mining using the Apriori algorithm and producing progressive approximate answers for aggregation queries. In addition to creating a variety of Apache Pig queries and Apache Hive scripts.

#### Various full-stack development projects

Developed many full-stack projects for different areas (Healthcare, Education, Social, and others) using multiple technologies for front-end like React, Vue.js, JQuery, and Vanilla JS. And multiple technologies for backend like Spring Boot, Express.js, and Flask. That interacts with different data sources like SQL, NoSQL, REST API, and GraphQL. And communicate with other services like ActiveMQ Artemis and Keycloak.

More projects https://kalua.im/projects/

## Awards & Achievements

# Winner Best Hack Using a NYC API

HackNY Hackathon Spring 2017
Intel, MongoDB, Twilio and others
https://devpost.com/software/mansplaintome

## **Winner Most Original Project**

DuckHacks Hackathon 2017 Google and JPMorgan Chase & Co.

https://devpost.com/software/duckhacks-share-your-taste

#### Certificates

## **Advanced Study in Software Construction**

Massachusetts Institute of Technology http://web.mit.edu/6.031/www/fa19/

# **React Nanodegree**

Udacity

https://confirm.udacity.com/563VRG2S

# A developer's guide to the Internet of Things (IoT)

Coursera (9J6KF7RTGT3H)

 ${\it https://www.coursera.org/account/accomplishments/verify/9J6KF7RTGT3H}$ 

# Red Hat Certified System Administrator

Red Hat (140-006-149)

https://www.redhat.com/rhtapps/certification/verify/?certId=140-006-149

Skills

Languages TypeScript, Java, Python, JavaScript, Objective-C

Frameworks Expo, Express.js, Spring Boot, Flask

Frontend React, Vue, HTML5, CSS3

Infrastructure SQL, NoSQL, Node.js, RabbitMQ, GraphQL, In-

fluxDB, etcd, Redis, Hadoop, Spark, Pig, Hive

