

Nawaf Khalid Abdullah

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Education

The Pennsylvania State University — Main Campus

BS IN COMPUTATIONAL PHYSICS WITH MINOR IN INFORMATION SCIENCE AND TECHNOLOGY

University Park, PA, USA

July 2015 – May 2020

Experience

Rohde & Schwarz GmbH & Co KG — Software Engineering Intern

Singapore

Jul 2018 – Jan 2019

- Led full-stack development of an application that manages and automates software testing results analysis processes, increasing the testing team's efficiency.
- Developed and maintained Python automated UI test scripts, supported by manual physical testing with RF Instruments, and detected over 100 major software defects.
- Researched and experimented with methods to extrapolate Far-Field Electromagnetic Interference (EMI) measurement results from Near-Field radiation.
- Technologies Used: C#, Python, Squish IDE, WPF, Jenkins, MySQL, Entity Framework, XML, RESTful, F#, Fiddler, VM

Skills

Programming: Python, C++, C, C#, JavaScript, MATLAB, Bash

Web: HTML, CSS, ReactJS, jQuery, AngularJS, NodeJS

Database: MySQL, Firebird, Entity Framework

Mobile: React Native, Swift, Xamarin

Tools: Git, Jenkins, TravisCI, Apache, ROS

OS: Window, Linux, Mac

Langauges: English, Arabic

Projects

NASA G-Chaser Sounding Rocket

DEVELOPED COMMAND AND DATA HANDLING SOFTWARE THAT CONTROLLED PAYLOADS OF A ROCKET THAT IS A PART OF THE GRAND CHALLENGE INITIATIVE, AN INTERNATIONAL SPACE RESEARCH COLLABORATION.

C++, BeagleBone Black, Linux

bit.ly/2TVT2N0

ScoreOne: Tournament Scoring App

DEVELOPED AND PUBLISHED CUSTOMIZABLE TOURNAMENT SCORING REACT NATIVE APP WITH AN ERROR-PROOF INTERFACE, ROUND TIMER, AND THE ABILITY TO STORE MATCH DATA.

React Native

apple.co/2WHSnV8

LitCaps: Lyrics Caption Generator App

DEVELOPED A REACT NATIVE APP THAT USES LYRICS FROM ARTISTS TO GENERATE SOCIAL MEDIA POSTS, AND LINK THE CAPTIONS TO SPOTIFY AND LYRICS ANNOTATIONS.

React Native, SpotifyAPI, RESTful

bit.ly/327xZvO

React Native Fill Up Button

DEVELOPED A REACT NATIVE BUTTON COMPONENT WITH FILLS UP ANIMATION ON PRESS AND HOLD, AND PUBLISHED IT ON NPM.

React Native

bit.ly/2JmTAYo

Big-O Data Structures and Algorithms Performance App

DEVELOPED AND PUBLISHED AN IOS APP FOR COMPUTER SCIENTISTS USING SWIFT, THAT COMPARE DATA STRUCTURES AND ALGORITHMS PERFORMANCE FOR SPECIFIC COMPUTATIONAL OPERATIONS.

Swift, Xcode

apple.co/2WLYjN0

Aerospace Software Engineering Drone Challenge

LED THE DEVELOPMENT AND TESTING OF THE WINNER AERIAL SURVEILLANCE DRONE, AND PROGRAMMED THE DRONE VARIOUS SOFTWARE AND HARDWARE MODULES AND INTEGRATED THEM.

C++, RaspberryPi, PHP, JavaScript

github.com/kevinparlak/weatherballoon

Scikit-CP: Computational Physics Python Package

DEVELOPED AND PUBLISHED THE FIRST OPEN SOURCE, MIT-LICENSED, PYTHON COMPUTATIONAL PHYSICS PACKAGE PROVIDING SCRIPTS FOR SIMULATION AND MODELING OF PHYSICAL OBJECTS AND SYSTEMS.

Python, NumPy, Matplotlib

github.com/MentalN/scikit-CP

PhysTerm: Physics Problem Solving Terminal

CREATED A CROSS-PLATFORM PYTHON TERMINAL PROGRAM TO SOLVE PHYSICS PROBLEMS.

Python
github.com/MentalN/PhysTerm

Genius NoToken Web Scraper

WROTE AND PUBLISHED AN OPEN SOURCE PYTHON SCRIPT THAT EXTRACT LYRICS DATA FROM GENIUS.COM AND SPOTIFY WITHOUT REQUIRING CLIENT ACCESS TOKEN.

Python, RESTful
bit.ly/2WJtkkx

HackPSU: Penn State's Student Run Hackathon

PROGRAMMED A RASPBERRYPI COMPUTER TO MONITOR NETWORK PACKETS, AND ALLOWED ITS RESULTS TO BE REMOTELY ACCESSED SECURELY FROM A LAPTOP USING APACHE SERVER.

RaspberryPi, C, Linux

Space Positioning System

LED THE DEVELOPMENT OF A SPACE POSITIONING SYSTEM THAT USES PULSAR DATA FROM THE AUSTRALIAN TELESCOPE NATIONAL FACILITY TO CALCULATE THE POSITION OF AN OBJECT IN SPACE.

Python, SQL

Self-Driving Cars Environment Simulator

DEVELOPED A C++ SOFTWARE SYSTEM THAT SERVES AS A CENTRAL CONTROLLER FOR SELF-DRIVING CARS USING ROS.

C++, ROS

MATLAB Maze Runner Robot

PROGRAMMED A SIMULATED ROBOT THAT USES SONAR SENSORS TO NAVIGATE ITS WAY OUT OF A MAZE.

MATLAB

Awards

2014

The Custodian of The Two Holy Mosques' Overseas Scholarship Program, Full-Ride sponsorship to university with allowance awarded to students who achieved excellence in secondary school and top 1% scores in national exams.

*Ministry of
Education, Saudi
Arabia*