SACHIN RAJA

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EDUCATION:

Illinois Institute of Technology - Masters in ECE ; Major: Computer Engineering	**August 2018 - May 2020**
Visvesvaraya Technological University - BE in Electrical and Electronics Engineering	**August 2012 - July 2016**

TECHNICAL SKILLS:

Core Programming Languages:	Python, C#, C/C++, Java.
Backend Technologies:	Spring Boot, NodeJS, .NET framework 4.0, Spring boot, Flask, Apache Spark.
Frontend Technologies:	JavaScript: ReactJS, Angular JS, HTML, CSS (CSS Grid, Flexbox), Bootstrap.
Database Technologies:	MySQL, PostgreSQL, MongoDB (NoSQL), SQLite3.
Build/Deployment Technologies:	Gradle, AWS, Azure, Docker Containerization.
Protocols:	TCP/IP, MQTT, HTTP, FTP, VoIP, DNS, XBee, SSL.
Tools Used:	Visual Studio, GIT, Jira, TFS, VS Code, IntelliJ, Crystal Reports, Log4j, Oracle VirtualBox.
Operating Systems:	Windows 10/8/7, XP, Server 2008/2012/2016, UNIX/Linux, Raspbian.
Area of Interest:	Software Engineering, Embedded Software Development/Testing, IoT Engineer.

WORK EXPERIENCE:

MetriTrack Inc.: Engineering Intern   **August-2019 to present**

- Developing and supporting a website using **HTML5**, **CSS**, **JavaScript, XML**. Writing software/hardware unit test cases, running smoke tests for WPF application used for the BVN system. Agile practices were used for the releases and client issues were addressed immediately. Image processing on DICOM images and Research on IEC Standards.
- Implementing firmware used for hardware testing, drafting hardware test protocols, procedures and conducting hardware tests programmed in **C/C++** and data analysis on sensor data, Clinical Data using SQL and Excel.

Cognizant Technology Solutions: Software Developer   **June-2016 to July-2018**

- Developed a License tracking application that consists all the critical license data of the client created on **.NET platform using C#**, **MS SQL Server** with relational databases achieving authentication and authorization to the web application**.** Used TFS for version control. Agile practices were used for the releases and client issues were addressed immediately.
- Administered multiple projects in **ASP.NET**, **C#, C/C++**, **Python, Angular JS** and enhanced the UI experience using JavaScript, CSS3 (Flexbox, CSS Grid). Provided L3 and L4 Support for the web application.
- Analyzed business requirements and planning of deployments in different environments (QA, UAT, Prod). Analysis and generation of complex reports as per the client's requirement.

PROJECTS:

IoT Simulator & Smart Hub:

- Building a scalable and responsive web application for an IoT Smart Hub for all commercial IoT devices irrespective of the make using **Python**, **Java, JavaScript using React, CSS, HTML** on the **spring boot** application framework.
- Developed RESTful API's using the publisher subscriber pattern and the MQTT Broker we update states thorough out the application in real time. Practiced Test-Driven Development of features through Junit test classes and log4j for application logs. Using MongoDB as the database.

IoT Based Fall Detection System:

- Developed website to analyse the patient's vital data. On detection of a fall the physician will receive an alert along with the location of the patient.
- Used a **GPS, gyroscope** and **accelerometer** sensors for this implementation.
- Used **XBee** for communication and raspberry pi was used as a server.
- Used **Python and Flask** framework for creating the web application, **HTML, CSS3, JavaScript, Bootstrap** was used for the frontend and **SQLite3** as the backend database.

IoT Based Weather Monitoring system:

- Developed a system to monitor and analyse the weather data. Used a temperature, humidity, pressure, rain sensor, and LDR sensor for this implementation. Raspberry pi was used as a server.
- Used **Python and Flask** framework for creating the website, was used for the frontend and SQLite3 as the backend database.

Harcourt Online Tracking System:

- Developed and maintained a website to manage the vendors licenses and asset data. Implemented **crystal reports, excel sheets, Microsoft reporting tools** to generate reports from the applications.
- Used C# on **.NET framework 4.0** for creating the website, **HTML, CSS3, JavaScript, ASP.NET** was used for the frontend and **MySQL** as the backend database through **SQL Server management studio**. Used **TFS in visual studio** to commit changes.