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| **Chiheb Bejaoui,** BSc  Senior Solution Developer  LinkedIn; <https://www.linkedin.com/in/no-place-like-127001/>  Website: <https://ch1heb.github.io/about/>  (PR Holder) | North York, ON, M2N 3G6  (437) 225-9029  [chiheb@engineer.com](mailto:chiheb@engineer.com) |
| **SUMMARY OF QUALIFICATIONS** My unique mix of previous work experience working for startups with accelerated time to market to deliver multiple MVP’s led me to acquire a large selection of tools and programming languages, as I wear a lot of hats during my journey delivering an MVP with an accelerated time to market, using:   |  |  | | --- | --- | | Languages | Java - C# - Kotlin - Javascript - JQuery - C++ - Shell - NoSQL - MySQL - SQLite - Python - Lua - CSS - HTML - XML - Bootstrap - QML | | Tools/IDE | Android Studio - ASP.NET - Unity3D - ROS - QT Creator - FFMPEG - Axure -- GStreamer - mqtt - Docker- GIT - Notepad++ - Visual Studio - bugzilla - Opencv - WebRtc - videojs - PDFjs - CKeditor - Jira – Trello – Oracle – POSTMAN – Retrofit - ROOM | | Field of application | Chabot’s - AR - VR - IOT - Web Services - Web - Mobile - Linux Servers - Embedded - pentesting - Ecommerce - CMS - Payment – Game dev - Video Streaming - UX | | Hardware | esp8266 - RaspberryPi - pic16f877 - BeagleBoard - RFID - atmega328 - 3D Printers – Lidar - ARM | | OS | KaliLinux, Rasbian, Ubuntu, Fedora, Red Hat, Windows | | Cloud | AWS EC2- IBM Watson - GCP - Azure - Firebase - Dialog Flow | | **SKILLS**  * Android Development. * Full-Stack Web Development. * Robotics Design and Development. * Internet Of Things. * QT - QT Creator * Embedded Systems * Game Dev (AR - VR) * ASP.NET * Linux - Servers- Shell Scripting - Web Scraping (python)- ChatBots * UX - Axure  **EDUCATION** Bachelor IT, ISETN University  AWS, Kotlin, other courses  Scrum Method, SCRUMstudy  Web Services, Magaztee  Embedded Mobile Dev  **LANGUAGES**  English, French |

# **PROFESSIONAL EXPERIENCE**

## **VTRAC Robotics** Feb 2019 - Present

### Research and Development:

* Android based consumer and service robots Development and implementation of AI capabilities using cloud-based NLP, STT, TTS engines enabling users to communicate and command specific tasks in which the Robot will distinguish and execute.
* Design and development of real-time android based remote control for sanitizing robots by enabling embedded video streaming solution and navigation controls for FPV capability.
* Android app running on a disinfection robot reskin and features enhancements and optimization to include more features including FPV, remote control and task scheduling.
* Conception and Development of an AI ChatBot Platform based on Java Spring boot, Thymeleaf Java XML/XHTML/HTML5 template engine, Spring Security, and AI module providing communication over multiple channels (Email, SMS, Messenger, ChatBox).
* Consult with clients and internal team members to develop, conceptualize, and implement strategies and designs for websites.
* Provide and prepare creative and original website layouts that are interesting yet simple to Navigate to optimize the user experience.
* Plan, create, write, and integrate user interfaces and use technical skills such as JavaScript, HTML, JQuery, and CSS.
* Arrange coordination with the internal team, including performance follow up, problem resolution and site performance, troubleshooting and backup.
* Conducting research study of analyzing user behavior and HMI by setting up various user metrics to measure usability and intuitive design and apply the finding to deliver a fully adaptive experience for the target user.
* Performing periodic security audits for hosted websites and patching potential vulnerabilities and providing recent updates and backup while in current with any published zero-day exploits.
* Translating Customer Requirements into technical specifications with actionable Design Inputs that will be delivered in the product plan based on agile user stories and short, time-boxed sprints.
* Writing software requirement specification reflecting the technical features that will be implemented based on the priority and regulatory requirements intended to cover development approach, design preferences, and architecture requirement to maintain a scalable and stable product.
* Performing technical reviews examined by project personnel, managers, customers, user representatives, and other interested parties for comment or approval of implemented software and hardware solutions.

## **StreamPixel** — *Software Engineer* Jan 2017 - December 2018

### Research and Development:

* Design and Development of an Android app that with an admin dashboard to control the deployed devices and switch back to sign up the participant and allow them to sign an NDA before the meeting starts, (Android Studio, Restful API, Room, SQLite, MQTT)
* Video Encoding and Streaming (FFmpeg - WOWZA - GStreamer)
* Used Azure cloud to orchestrate the scheduled tasks of deployed devices.
* Payment Solution (ASP.NET - SEPA GENERATOR - IBAN VALIDATION & CALCULATION): Collecting and validating the list of payment information to automate the SEPA file generation in order to pass it to the bank for payment processing, in addition to digital signature confirmation.
* ESignature Solution (Native Android - Web app): signature system that connects to the payment solution above allowing the full process to be automated. (Java, C#, XML, HTML, CSS, MySQL, PDF, JavaScript, JQuery)
* IOT Solution (Python - JS - JQuery - AWS - mqtt - ibm Watson - Azure): remotely access the deployed devices while maintaining an analytical preview of the performance and allow dividing the tasks over the deployed devices to perform decentralized data processing which give us access to the unused computation power and optimize our costs of deployment and to final client.
* SMS Gateway (Raspberry Pi - python - GSM Module): Development of SMS gateway asp.net web application which communicates with an embedded module using Restful Web Services to send SMS messages while maintaining control through a dashboard that contains all the statistics of scheduled batch campaigns.
* RFID Solution
* UX Design Axure: Designed mockups for different projects in order to validate and optimize the user experience.
* Hosting Solution (Linux , CPanel, penetration testing): built an internal hosting solution to deploy the MVP under stable and customizable environment, which include video streaming engine, video encoding, web hosting, and remote SMS gateway exposing web service from the embedded board and consuming it through the asp.net application. (Python, C, C#, SQL, HTML, CSS, REST)
* Web dev (Front-end - Back-end): Design and development of a native web application that communicates with a combination of software and hardware using different protocols and technologies including REST web services, NoSQL, SQL, Video streaming, Video transcription, payment processing, Authentication, role management.
* Embedded environment on Linux and ARM using Python, C / C ++ programming.
* Microsoft ASP.Net MVC environment.
* TCP / IP protocol, network programming and IP network transmission
* video encoding (h264, h265); streaming protocols (RTSP, HLS, ...) as well as the tools: Wowza, Video Player (JW, OSMF, ...)
* audio and video technologies (standards, codecs, protocols, player, ...)
* Participated in project analysis and validation of technical feasibility.
* Writing the detailed functional and technical specifications of the product.
* Coordinating the project with a multidisciplinary team working on related aspects of the product.
* Generated functional and reusable code according to best practices.

## **ImagineDev** — *Software Developer* February 2016 - January 2017

Research and Development:

***Game Dev (Unity3D - C#)***

* Cross-platform development for mobile apps targeted for deployment to Android and IOS based devices
* Enrolled in all the project aspects from Conception to Design, Development and implementation of different modules of the game and performed optimization and compression for mobile friendly deployment.
* Launched and tested new mobile games as well as provide maintenance to existing mobile games.
* Implemented game functionality as per design specifications Work with SDK and unity plugins.
* Participated in defining the key technical requirements.
* Responsible for the conceptual architecture of games and Integration with ad networks and other 3rd party SDKs
* worked with designers and artists to create new features and content in the game, as well as fix bugs, improve performance, and write tools to improve the efficiency

***Educational Robot***

(3D printing - Solidworks - Gcode - ESP8266 - Circuit design)

* Design and build of modular robots for educational purposes which is controlled by a hybrid mobile application in order to interact with the robot, design include OTA updates and programming.
* Used design principles to deliver the POC, technology included various types of microcontrollers for validating the idea and proceed with the development testing done on ATmega328, esp8266, BLE Bluetooth, HC SR04 distance sensor, servo motors, gyroscope, Accelerometer, mpu6050 power management design, IR sensor, photo resistor.

## **Odesk —** *Contractor* January 2012 - January 2014

Different types of projects including web hosting - troubleshooting

## **INTERNSHIPS**

## **Tunisie Telecom** — *Intern* January 2015 - February 2015

Research and Development:

Developed an Android Native App for Geo-localization of faulty cables and adding coordination toa remote Database (SQLite - MySQL - PHP - Java - XML - Json).

## **CCK Al-Khawarizmi Computing Center —** *Intern* January 2014 - February 2014

Research and Development:

Developed an Android Native App for Geo-localization of faulty cables and adding coordination toa remote Database (SQLite - MySQL - PHP - Java - XML - Json).

# **OTHER PROJECTS AND FREELANCE**

## **Embedded and mobile - 2017**

Build and design of a retail application that communicate with the inventory management system to provide real time notification about the inventory status on the shelf of the store during the shopping hours and give insights about each needed reload in specific location using load sensors connected to an embedded board running Linux based OS which communicate with the inventory management system using microservice based architecture.

OpenCv (Python), Microservice (REST), Web (HTML, CSS, JavaScript, JQuery), Cloud (IBM Watson, AWS), IOT (mqtt, python), Camera module, Load Sensors, HC SR04, BLE.

## **Augmented Reality - 2016**

Mobile app, teaches kids animals like a virtual zoo Incorporating Augmented Reality into highly visual, interactive educational experiences It allows students to see virtual content as appearing in the real world. Unity3D, Vuforia.

## **Drone ground control station and UAV - 2016**

Design and developed a base software to allow the implementation of the remote control capability to be performed by a software in order to push full autonomy in future implementation as a graduation Project. Android Studio, Unity3D, C, C#, Lua, Web Sockets etc..

ESP8266, ATmega328p, gyroscope, Accelerometer, mpu6050

## **Mobile Game - 2016**

Design and development of Mobile Game released on Android Devices. Unity3D, C#.

Developing different modules of application including menu, score calculation, levels difficulties, networking, and deployment to the store.

# **EDUCATION**

## **Higher Institute of Technological Studies of Nabeul,** — *Bachelor's degree, Information Technology*

### December 2013 - JUNE 2016

Embedded Systems and mobile applications development.

\*Evaluated and recognized by University of Toronto