

KIGALI, RWANDA  
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<https://github.com/nmeo7/>

# Romeo NTAZINDA

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## PROFESSIONAL SUMMARY

Student for life, ambitious, passionate and efficient programmer with a clear understanding of core computing principles, true team player offering 2+ years of work experience in Embedded systems and desktop application development industry. Enthusiastic indie game developer. Seeking a position in an environment that emphasizes teamwork and encourages learning by doing.

## SKILLS

Static programming languages:	C/C++, Java, assembly (ARM, Intel).
Dynamic programming languages:	php, js, python.
Databases:	MySQL, SQLite.
Frameworks/libraries:	MCUXpresso, Qt, Spring boot, Arduino, OpenGL.
Environments:	Linux, Windows, Android, FreeRTOS, bare metal, web, EC2.
Others:	Computational Math, Optimization, Networking, Testing.
Soft-skills:	Teamwork, listening, idea exchange, persistence.

## EXPERIENCE

### **RMsoft Ltd. Kigali, Rwanda** – *Software Developer*

DECEMBER 2019 – PRESENT

- Maintain, test, and improve existing web based solutions.

### **Pivot Access Ltd. Kigali, Rwanda** – *Firmware Developer*

OCTOBER 2017 – DECEMBER 2019

- Work with exceptionally smart people to design and manufacture embedded hardware devices, writing, updating, and maintaining computer programs and embedded systems firmware to handle payment-related tasks.
- Design and conduct software tests and hardware troubleshooting. Review test results and perform root cause analyses to identify problems.
- Select and purchase hardware material and parts assuring compliance with specifications and product design.
- Recommend architectural improvements, design solutions and integration solutions.

## PROJECTS

### **KANE – POS Device, Pivot Access Ltd**

KANE is a POS device that processes contact and contactless cards and QR-code payments, based on ARM Cortex M4 microprocessor. I was part of a team developing its software development kit and contributed by writing code for controlling the User Interface (keyboard inputs, LCD display, printer, LEDs), connectivity (sending data to the backend of the system, location fetching by GSM triangulation, QR generation), synchronization of the tasks, priorities of threads, interrupts handling, and building demo applications. Developed in C language using Kinetis Design Studio IDE on top of Arm® CMSIS-CORE, FreeRTOS, NXP HAL drivers and mbedTLS libraries.

### **RRA Certified Invoicing System – Pivot Access Ltd**

Developed a cross-platform application with ability to integrate with third party applications to report and fetch Rwanda Revenue Authority tax related information in real time, as well as to also work as a standalone to manage transactions of shops and other businesses. Written in C++ using Qt Framework.

### **Intravenous (IV) drip alert device – Research & development, Pivot Access Ltd**

Wrote Arduino firmware for sensing and visualizing the status of the drip and air bubble detectors in serum pumping device to a dashboard and to the system backend written in php, and noticing and alarming before there is an abnormal situation to help doctors and nurses give the best care to patients.

### **Implementation of Block Cipher cryptography algorithm – School Project**

Implemented a Soviet and Russian government standard symmetric key block cipher with a block size of 64 bits in Electronic Codebook, Cipher Block Chaining and Cipher Feedback modes. Used C++ language and WINAPI functions. Used substitution-Boxes that are used in the Central Bank of the Russian Federation.

<https://github.com/nmeo7/block-cipher-encryption-and-decryption-algorithm>

### **Ruhago – 3D video game, proudly personal project.**

Designed and implemented the game logic using Unity Engine in c# language and Unity built-in tools. Status – in progress. The game features a gorilla in a Rwanda shirt jersey performing penalty shootouts. All assets are created from scratch using blender software.

<https://github.com/nmeo7/Ruhago>

## EDUCATION

### **Belgorod State Technological University, Belgorodskaya Oblast, Russia – Bachelor of Science, Information Technology**

SEPTEMBER 2012 – JULY 2017

### **College Saint Andre, Kigali, Rwanda – High School Diploma, Mathematics, Physics, and Computer Science**

JANUARY 2009 – NOVEMBER 2011

Recognized as the 3rd best student in science combinations nationally by Rwanda Education Board.

## EXTRA COURSES

### **Advanced Operating Systems** – *Udacity*

Scheduling, synchronization, relationship between hardware and software.

### **Applied Cryptography** – *Udacity*

Learned about making and breaking puzzles in computing.

### **Deep Learning** – *Udacity*

How it is applied to solve complex problems. Train and test models in Tensorflow including recurrent neural networks.

## LANGUAGES

English	- Full Proficiency
Kinyarwanda	- Native
French	- Proficiency
Russian	- Proficiency

## AWARDS

Recognized as the 3rd best student in science combinations nationally by Rwanda Education Board, 2011, and awarded a scholarship to continue my studies in the Russian Federation.

## INTERESTS

Friends, family, 3D computer graphics, tech and science, audiobooks.

## REFERENCES

### **Jared Okuta**

– *HR, Pivot Access Ltd*

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### **Elodie Ndayikunda**

– *Supervisor, Pivot Access Ltd*

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### **Igor Ivanov**

– *Teacher and Head of IT department, BSTU*

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