LUPIN ROMAN

SOFTWARE DEVELOPER

Experienced and versatile Software Developer with over a decade of proficiency in C++
programming, coupled with a substantial background in software development encompassing C
programming language, Python scripting, and extensive hands-on experience leveraging Qt, boost,
GStreamer and FFmpeg libraries. Adept at design robust software solutions, my expertise extends to
harnessing Docker/Podman for building and testing. Eager to apply my diverse
skill set and innovative problem-solving approach towards driving technological excellence and delivering
high-quality software solutions

CONTACTS

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lupin.roman@proton.me

TECHNICAL SKILLS

- C++ (> 14 years)
- C (> 1 year)
- boost library (> 2 years)
- GStreamer framework (> 3 years)
- FFmpeg framework (> 1 year)

- Docker / Podman (> 3 years)
- Python (> 1 year)
- Qt framework (> 6 years)
- Linux (> 10 years)

WORK EXPERIENCE

May 2025 - Present
(2 months)

FREELANCE BLOCKCHAIN DEVELOPER

Implementation of a Node.js script for USDT transfer on the
Arbitrum One network using the ethers.js library, including
balance checks, gas fee considerations, and transaction
execution. Deployed a Vault server in one Docker container and
a Vault agent in another, providing access to secrets during script
execution. Used libsodium functions to encrypt secrets at rest.

Language: Node.js
Libraries: ethers.js, libsodium
Secret provisioning and access control: HashiCorp Vault
Development and testing environment: Docker
Host OS: Ubuntu
Container OS: Alpine Linux
Auxiliary language: Python
IDE: Microsoft Visual Studio Code

January 2022 - April 2025
(3 years 4 months)

SENIOR SOFTWARE DEVELOPER

Winfinity Live LLC

Development of a multimedia application based on the
GStreamer framework and its plugins. Using DeckLink cards from
BlackMagic Design to capture audio and video. Using various
encoders to create encoded RTMP live streams. Sending encoded
RTMP live streams to different media servers.

Language: C++
Libraries: GStreamer, GLib, FFmpeg, boost, librtmp
Auxiliary language: Python
IDE: Microsoft Visual Studio Code
Development and testing environment: Docker, Podman
Host/Container OS: Ubuntu
Version control system: Git
Project management system: Atlassian JIRA

January 2020 - December 2021
(2 years)

SENIOR SOFTWARE DEVELOPER
MyTona LLC

Development of a set of programs to increase the degree of player's enthusiasm for the game by analyzing the tactical characteristics of the player and the subsequent correction of the characteristics of the playing field.

Language: C++
Auxiliary language: Python
Static code analyzer: PVS-Studio
Source code editor: Sublime Text
Platform: Ubuntu
Version control system: Git
Project management system: Wrike

September 2019 -
December 2019
(4 months)

SENIOR SOFTWARE DEVELOPER
Garda Technologies LLC (Citadel Holdings Inc.)

Development of a set of programs that implement end-to-end tagging for intercepted files as part of a data leak prevention system.

Language: C++
Library: boost
Auxiliary language: Python
Source code editor: Sublime Text
Platform: CentOS
Version control system: Git
Project management system: Atlassian JIRA

September 2018 - April 2019
(8 months)

SENIOR SOFTWARE DEVELOPER
Vega-Chi Financial Technologies LLC (Liquidnet Holdings Inc.)

Research and development for the Fixed Income Trading Platform for trading of financial instruments:
- generating of set of XML-files for the last version of FIX protocol;
- receiving of virtual prices of financial instruments from external services by client requests;
- calculating of real prices of financial instruments by virtual prices;
- sending of real prices of financial instruments to clients;
- research and development for predicting of different parameters: internal rate of return, net present value,
modified internal rate of return, return on investment;
- receiving and processing of different types of subscriptions from different types of clients;
- sending reports about deals to external markets.

Language: C++
Libraries: boost, QuickFIX, Solace
Auxiliary languages: Gherkin, Ruby, Perl, Python
Source code editor: Sublime Text
DBMS: MariaDB
Platform: CentOS
Version control system: Git

August 2017 - September 2018
(1 year 2 months)

SENIOR SOFTWARE DEVELOPER
T-Systems LLC (Deutsche Telekom AG)

Development of a set of programs that implement optimization of order picking to solve emergency situations on various types of telecommunication equipment.

Language: C
Auxiliary language: bash
Source code editor: Notepad++
DBMS: IBM Informix DB
Platform: IBM AIX

| January 2017 - May 2017 | **SENIOR SOFTWARE DEVELOPER** |
| (5 months) | NSN LLC (Nokia Solutions and Networks Oy) |

Development of a set of programs that ensure the work of a subscriber station in LTE networks (3GPP LTE Release 13).

Languages: C/C++
Auxiliary language: Python
Source code editor: Sublime Text
Platform: Ubuntu 14.04
Version control system: Git
Project management system: Atlassian JIRA

December 2013 -	**SOFTWARE DEVELOPER**
December 2016	Moscow Exchange PJSC
(3 years 1 month)	

Research and development for the MOEX Spectra Terminal for trading of financial instruments on the Derivatives Market of the Moscow Exchange:
- development of module for modeling of trading portfolio characteristics (position costs and greeks) at different values of volatility and time of expiration of trading tools with displaying on charts;
- development of color quantization algorithm to display curves on graphs;
- development of module for calculating of volatilities by theoretical prices for different trading instruments with displaying on charts;
- development of module for setting and sending of group of orders for purchasing/selling of financial instruments;
- development of module for calculation of yield for bonds for variety of trading instruments;
- development of module for transferring of funds between trading accounts of different markets;
- development of graphical user interface for displaying of volatility smile.

Language: C++
Libraries: Qt5, Qwt 6.1
IDE: Qt Creator, Microsoft Visual Studio C++
Auxiliary development program: WinDbg
Platforms: Windows, OpenSUSE, Mac OS X
Version control system: Git (Gerrit)
Project management system: Atlassian JIRA

December 2012 -
December 2013
(1 year 1 month)

SOFTWARE DEVELOPER

Actel CJSC (Microsemi Corp.)

Development for ground complex to control air drone in flight:
- development of program for visualization of meter indicators and control element indicators;
- development of set of programs for processing of video files;
- installing and exploitation of video recording devices.

Development of programs for customizing the air drone engine before flight.

Language: C++
Libraries: Qt4, Qwt 6.1, ffmpeg 2.0, libusb 0.1
IDE: Qt Creator
Platform: CentOS 6.4
Version control system: Mercurial 1.4
Project management system: PRM

November 2010 -
November 2012
(2 years 1 month)

SOFTWARE DEVELOPER

VNIIRA JSC (Almaz-Antey Air and Space Defence Corp. OJSC)

Research and development of models of flight trajectory prediction for different types of airborne vehicles.
Development of set of programs for prediction of flight parameters of airborne vehicles for automated system of air traffic control.
Development of program for editing of mapping information for aeronautical simulator-based system.
Development of program for backing up and restoring of setting parameters of aeronautical simulator-based system.
Development of program for linking of approach routes for automated system of air traffic control.

Language: C++
Library: Qt4
IDE: Qt Creator
DBMS: MySQL
Cartography editors: GPSMapEdit, MapSource, SAS.Planet
Software for technical computing, simulation and model-based design: MatLab
Platforms: OpenSolaris, CentOS
Version control system: Subversion
Project management system: LUXproject

Experience with international standards of air traffic control (ARINC-424, AIP, ICAO Doc 4444, METAR/TAF, EuroControl). Participation in overcurrent of dissertations on air navigation and air traffic control. Experience with aeronautical simulator-based systems (Navigator-2, KDP-Vyshka, Sintez-T).

| April 2009 - September 2010 (1 year 6 months) | **SOFTWARE DEVELOPER**
NPP NTT LLC |

SOFTWARE DEVELOPER
NPP NTT LLC

Research of models of analog-to-digital devices of digital signal processing. Analysis of mathematical models of radio-signal propagation. Analysis of program model of radio-signal generation. Development of a set of programs for the WiMAX subscriber and base station detection system (IEEE 802.16d, IEEE 802.16e). Installing and exploitation of wireless access networks (WiMAX).

Language: C++
Libraries: Qt4, wxWidgets, CLX
IDE: Qt Creator, Code::Blocks, C++ Builder
Auxiliary development programs: Anritsu IQproducer, Matlab Simulink, QEDesign, Adobe Audition, Audacity
Version control system: Git
Project management system: Redmine

Experience with measuring equipment and signal generators (Leica Camera AG, Rohde & Schwarz GmbH & Co. KG, Agilent Technologies Inc.). Experience with international standards of wireless communication (IEEE 802.16d/e).

November 2007 - March 2009 (1 year 5 months)

TECHNICAL ASSISTANT
Nevo-D LLC

Design of process-specialized digital and analog hardware (X-ray tomography). Design of block diagrams, functional circuits and schematic configuration. Participation in PCB layout and FPGA design.

Language: AHDL
Development programs: Altera Quartus II, P-CAD, Altium Designer, NI Multisim, Kompas 3D, AutoCAD

EDUCATION

September 2003 - June 2009 (6 years)

M.Sc. in Electronic Engineering (Microprocessor tools (MCUs) and software for measurement)

Peter the Great St. Petersburg Polytechnic University

Engineering Cybernetics Department, Measuring Information Technologies Subdepartment (full daytime education)

| LANGUAGES | English (Upper Intermediate) |
| | Russian (Native) |

PERSONAL INFORMATION

First name: Roman
Patronymic: Anatolievich
Last name: Lupin
Gender: Male (Cisgender)
Date of birth: 27.12.1986
Citizenship: Russian Federation
Nationality: Russian
Marital status: Married
Place of residence: Niksic, Montenegro (GMT+02:00)
Residence permit type: Digital Nomad of Montenegro

SOFT SKILLS

Analytical/logical thinking, creativity/innovativeness, flexibility/adaptability, attention to details, accuracy

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PORTFOLIO LINK

https://github.com/roman-empire-roman