

Victor Kozub - C++ Developer

Github: <https://github.com/xen1024/awesome-public>

Github: <https://github.com/web3cryptowallet>

Github: <https://github.com/d08ble>

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About

I writing secure, highly optimized code and building robust, scalable architectures. My journey began with programming microcontrollers like 8051, PIC, AVR, and 8086, where I developed my first RTOS and worked on hardware projects in a garage with a college friend. My foundational expertise lies in low-level programming with Assembler, C, and Verilog. In the pre-GPU era I developed numerous highly optimized firmware solutions for devices such as a Multifunctional Caller-ID with Voice using 64k ROM assembler code, 4-voice polyphony on an 8052 running at 20MHz, a billiard timer with a remote control featuring encryption and an RG LED screen with a 16x8 register block.

Experience

2012-2025 Animation CPU Studio - Founder

Mobile game developmet platfrom for smart developers

Game prototyping

- ACPUL programming language
- UI/UX
- C++/C/GLSL
- never crash
- never halt
- secure (not browser, minimum code), can run on kernel level (using IncludeOS like)
- multiple running platforms, code compile to c++ (multiple platform bindings is possible Python, Java, Flash)
- creative development of games easy like playing in games
- not only games, future UI and systems
- light asm core, same code can work on microcontrollers (for internet of things)

- minimalistic declarative language
- VR/OpenCV easy api
- backstep debugger
- team development on mobiles together realtime
- easy parallel optimizations (possible implement multicore hardware ACPUL implementation)

mobile, ios, ACPUL, C++, C, GLSL, Programming language, Yacc, Bison, Coco/R, OS, web, LiveComment

2015-2025 Animation CPU Studio - Twitch Streamer for iOS - Developer

Tuning LFLiveKit for streaming to Twitch with High Quality from iPhone or iPad

video, streaming, Twitch, OpenGL, textures, GPU, shaders, image processing, C++, Objective-C, LFLiveKit

2015-2024 Animation CPU Studio - Media Lib - Developer

Development of a cross-platform library for working with video and audio (a wrapper around ffmpeg)

video, audio, streaming, player, recorder, ASM, C, C++, Objective-C, Swift, RTMP, RTSP, RTP, ffmpeg, cross-platform

2024 AI WEB3 Bittensor - Web3 AI Developer

Bittensor core development and multiple subnets research. Creating Miner and Validator for compute subnet.

Benchmarking AI algorithms for the latest AI hardware (A100, H100).

Hashcat GPU kernels.

Tensorflow training benchmarks, PyTorch and TinyNN benchmarks.

Research models for video, audio, forecast, GPT and more.

The world's first visual mining algorithm KudoMine.

Cloud services Akash network integration: docker image, kubernetes and web panel, CLI scripts with provider-services, docs'

ai, web3, bittensor, TAO, compute-subnet 27, bittensor core, Python, CUDA, C, C++, PyTorch, TensorFlow, TinyNN, LangChain, LlamaIndex, LLaMA, miner, cuda miner, KudoMine algorithm, optimization, akash network, Docker, Kubernetes, cloud, services, A100, H100, 4070, 4090, NVIDIA, JavaScript, TypeScript, web, LiveComment

2020 Floris NodeJS HLS Filter - Developer

Developing an optimized Node module for HLS color correction in video production 4K workflows using the DeckLink SDK by Blackmagic Design.

C, ffmpeg, FullHD, 4K, NodeJS, npm, web, DeckLink SDK

2020 Pionner.app Remote Startup Accelerator - Founder clubavatar.app

Participated in the Pioneer.app remote startup accelerator with several startups: AR/VR virtual club clubavatar.app, the AI generator likeplus.plus and the gaming platform animationcpu.com. clubavatar.app was selected among the Top 30 startups in Europe.

startup, accelerator, Pioneer.app, coach, founder, AR/VR, mobile, iOS, web, no-code, game, generative, ai, avatar, NextJS, node, JavaScript, TypeScript, web, C, C++, Python, Swift, Objective-C

2018-2019 WEB3 The Global Crypto Currency - Bitcoin Core Developer

Top 500 crypto

Bitcoin Core Masternode Fork

- PoS
- p2p
- Networking
- Monitoring
- Analyzing

web3, crypto, bitcoin core, C++, C, PHP, JavaScript

2017 Arepa Coin - Dash Fork Developer

Arpea Coin is a new coin for Venezuela based on Dash with masternodes

web3, arepa coin, crypto, bitcoin core, bitcoin, bitcoin fork, C, C++

2015 Animation CPU Studio - VNC Bot - Developer

Creating a Mac-iPad remote control interface similar to VNC with FFmpeg-based video streaming. Developed an innovative mobile UI/UX for remote computer control by streaming interactive screen zones. Codec optimization was performed to ensure low latency over 2G Wi-Fi and iPad Air. Custom encryption layered on top of RTP/RTMP.

The system consists of two parts:

1. **Mac Remote Control Bot** – streams active screen zones and windows, simulating mouse and keyboard actions.
2. **ACPU-VNC Client** – acts as a player, decoding active zones from the stream and transforming them into intuitive UI/UX elements for touch-screens. These elements allow user interactions, which are then sent back to the Mac Remote Control Bot as keyboard inputs and mouse actions such as drag & drop.

video, streamer, player, screen recording, ffmpeg, optimization, encryption, bot, keyboard and mouse simulation, Mac, iPad, UI/UX, ASM, C, C++, Objective-C

2014 Photo Acute Pro - Developer

Refactor complex & buggy C++ Qt MVC app

Multiscale up to 16× using camera lens parameters

Present at the Photokina 2014 exhibition at the deadline

C, C++, Qt, OSX/Windows, cross-platform, photo algorithms, optimization, photo, image, multiscale

2014 WEB3 Ethereum - Geth Researcher, Bounty Hunter, Developer

Research and testing of Ethereum Geth

web3, crypto, ethereum core, geth, Go, C++, JavaScript, algorithms, EVM, smart contracts, p2p

2013 Valgrind - MacOS System Developer

Update Valgrind 32-bit memory checker for MacOS 64-bit

asm, 32-bit, 64-bit, C, C++, kernel

2013 QEMU - Developer

QEMU VM researcher

- backstep in QEMU
- resource monitor
- networking

C, C++, QEMU, VM, kernel, drivers

2013 Diablo Game Bot - Co-founder, Developer

Diablo Game Bot

- Assembler

- C#
- Protocol
- Themida, reverse

C#, C, C++, asm, Themida, reverse engineering, hacking, bot, gamedev

2012 Startup: AI Photo Generator - AI Mobile Developer

Make Art from Photo using AI DNA algorithms.

Invention of algorithms for fast image generation on iPad with DNA learning through feedback (c).

ai, DNA, generation, math, algo, C, C++, Objective-C, GPUImage, art, UI/UX

2012 BottleGame - iOS Video Chat Developer

iOS Client for online Flash game BottleGame.

A video chat dating game was built from scratch: featuring responsive design, animations, emoji chat, and API integration. The only challenge was video support, as Adobe AIR did not yet support video. To solve this, I developed a custom media library in C++ and Objective-C based on FFmpeg, enabling video streaming and playback using the Erlyvideo RTMP broadcast server. This involved fixing blocking bugs within FFmpeg and Erlyvideo, as well as optimizing latency and quality parameters for slow connections.

mobile, ios, game OpenGL, video, streaming, video chat, ffmpeg, Erlyvideo RTMP server, RTMP, realtime, Objective-C, C++, C, Erlang, Flash, AIR, iPhone, iPad

2012 Freelance - Child Game Developer

SenseMatching Game is a fun and educational mobile game designed for children aged 2 to 5 years old. Built using Objective-C and the Cocos2D framework, it delivers a smooth and engaging experience on both iPhone and iPad. The game helps toddlers develop their sensory and cognitive skills by matching animals to their corresponding attributes

game, moible, iPad, Cocos2D, Objective-C, C++, C, Animations, ios, gamedev

2012 Freelance - Gambling Developer

HGE roulette game 2012 Developer

- C++
- OpenGL
- HGE

game, HGE, C++, OpenGL, gamedev, gambling, roulette

2010-2011 Ciklum - iOS Developer

midiphon mobile synthesizer

Top 10 iOS Music apps

- iPhone 2g
- Objective-C
- ARM Assembler
- C/C++
- Audio DSP
- Optimizations for performance/low memory
- GUI engine
- UI/UX
- Hardware keyboards Akai/MMZ api

iOS, C, C++, DSP, UI, UX, Akai, MMZ, ARM, iPhone, iPhone 2g

2009-2010 Freelance - Founder, Lead Developer

iPhone game Jungle Catz

One of the first Tower Defense games in the world on iPhone, for which I created an animation engine for over 200 Flash animations. Built on Cocos2D, Objective-C, and Box2D

mobile, ios, iPhone, game, game design, animation, flash, sound, Cocos2D, Box2D, OpenGL, Objective-C, C++, C, MacOS, Xcode, iPhone SDK 3.0

2008-2010 Startup - Founder, Developer

Adobe Flash to iPhone Converter

Memory and performance optimization for mobile

performance, optimization, graphics, animation, Objective-C, C++, C, MacOS, Xcode, iPhone SDK 3.0, Flash, AS3, C#, .NET, Python, OpenGL, Cocos2D

2009 Filzah Misran - Visual Search Engine Developer

Visual Search Engine

Search youtube videos by image

ai, FlaNN, NN, CV, youtube, web, C, shell

2006-2008 Trust Matta - Team Manager and Lead Developer

Network security scanner. Kiev office management, 6 peoples.

Project planning IPO - 220,000,000\$

Linux, Database, Security, Clustering, Web, Networking

Scanning 18,000 IPs for malware of NY Exchange over night

- GNU make tools (make, automake, autoconf, etc...)
- GNU development tools (gcc, gdb, etc...)
- Version control tools (CVS, SVN)
- Databases backend (MySQL, PostgreSQL, Oracle)
- OOP, STL
- Multithreading
- Networking, sockets, TCP/IP ! Webservice
- Optimization, refactoring
- C/C++
- Python
- Php
- Shell scripts
- Automake scripts

C, C++, Python, shell, automake, mysql, postgres, PHP, JS, web, networking, scanner, security, core, linux, kernel, drivers

2004-2006 Wicom Technologies - Embedded Linux Developer

Startup: Internet radio player to join 2M Ukraine immigrants from Canada and thousands of Ukraine radion stations.

Co-founder Ruslana Lyzhychko

Internet radio with server & hardware receiver development.

Embedded linux, bootloader, cli tools and drivers.

H.264 codec optimization for au1200 processor.

video, audio, codecs, streaming, embedded, cross-platform, internet radio, internet video player, au1200, VoD, optimization, MPEG-1, MPEG-2, h.263, c, c++, asm, arm, mips, shell, automake, busybox, Samsung, Windows, Linux, Networking, Database, Security, drivers

2006 System Storage Software (SSS) - Developer

BPX Server

Voice over IP PBX Server

Windows, VOIP, Networking, Web, Database

C, C++, sipX, VOIP, IP-telephony, PBX, chat bot, Microsoft visual studio

2003-2004 System Group - PoS Terminal Developer

Datecs MP50 POS Terminal development

Embedded system, Networking, Security

- Linux
- Embedded
- C/C++
- Assembler x51
- Reverse engineering

c, c++, asm, reverse, optimization, drivers

1999-2000 vi-comp - Developer

Audio compressor/filter DSP

Hack PDS-51 simulator

- C
- Assembler x51
- Reverse engineering

C, DSP, asm, x51, embedded, C, asm, x51, x86, reverse engineering, drivers

2000 vi-comp - Billiard timer Developer

vi-comp 2000 Developer

- Billiard timer
- IR remote control
- Secure protocol

AVR, embedded, C, IR RC, floating code

2000 Ukraine National Antivirus (UNA) - Developer

Outpost Firewall plugin development for antivirus scanner

realtime file scanning while transfer over network

- NET-BIOS ! CIFS
- POP3
- SMB
- TDI ! C++
- Reverse engineering protocol

C++, SAMBA, POP3, CIFS, SMB, reverse engineering, realtime, antivirus, drivers

1998-1999 vi-comp - LED Screen Developer

LED Screen RG 16x8 device embedded software and windows editor

- Embedded VFX
- Windows Editor
- VM
- GL

Embedded, AVR, Assembler, C, LED RG 16x8, drivers, Windows, Pascal, Delphi

1999 vi-comp - Developer

2D/3D graphics analyzer

C, DSP, Embedded, 2D, 3D, graphics

1997 vi-comp - Phone Developer

Phone CallerId UA-2000

Phone OS from the scratch

- CallerId detection algorithm
- Event-based internal system
- White and black list
- Clock
- Calendar
- Anti CallerId

- Call redirection
- CallerId detection
- Voice Speaking on Russian or Ukraine languages over 100 phrases ! Contacts Book
- Outgoing/Incoming calls
- Melody rings
- Line Hold
- Autocalling on multiple numbers
- Remote control
- Voice messages support
- DTMF generation and detection
- Assembler x51
- C
- Hardware
- Reverse engineering

embedded, phone, RTOS, drivers, asm, x51, 64KB ROM, C, reverse engineering, disassemble, optimization, sec, DTMF, tunes, voice, clock, calendar, phone, white/black list, CallerId detection, line hold, voice messages, address book, outgoing/incoming calls ## Educational Background ### National Technical University of Ukraine 'Kyiv Polytechnic Institute' (2001) Master of Computer Science Specialist's degree in Microelectronics and Software Development ### Kyiv Industrial-Economic College (1999) Bachelor of Electronic Devices ### Pioneer Startup Accelerator (2020) Pioneer Tournament School. Founder Clubavatar.app, Top-30 Europe

Notes

mobile, ios, ACPUL, C++, C, GLSL, Programming language, Yacc, Bison, Coco/R, OS, web, LiveComment, video, streaming, Twitch, OpenGL, textures, GPU, shaders, image processing, Objective-C, LFLiveKit, audio, player, recorder, ASM, Swift, RTMP, RTSP, RTP, ffmpeg, cross-platform, ai, web3, bittensor, TAO, compute-subnet 27, bittensor core, Python, CUDA, PyTorch, TensorFlow, TinyNN, LangChain, LlamaIndex, LLaMA, miner, cuda miner, KudoMine algorithm, optimization, akash network, Docker, Kubernetes, cloud, services, A100, H100, 4070, 4090, NVIDIA, JavaScript, TypeScript, FullHD, 4K, NodeJS, npm, DeckLink SDK, startup, accelerator, Pioneer.app, coach, founder, AR/VR, iOS, no-code, game, generative, avatar, NextJS, node, crypto, bitcoin core, PHP, arepa coin, bitcoin, bitcoin fork, streamer, screen recording, encryption, bot, keyboard and mouse simulation, Mac, iPad, UI/UX, Qt, OSX/Windows, photo algorithms,

photo, image, multiscale, ethereum core, geth, Go, algorithms, EVM, smart contracts, p2p, asm, 32-bit, 64-bit, kernel, QEMU, VM, drivers, C#, Themida, reverse engineering, hacking, gamedev, DNA, generation, math, algo, GPUImage, art, game OpenGL, video chat, Erlyvideo RTMP server, realtime, Erlang, Flash, AIR, iPhone, moible, Cocos2D, Animations, HGE, gambling, roulette, DSP, UI, UX, Akai, MMZ, ARM, iPhone 2g, game design, animation, flash, sound, Box2D, MacOS, Xcode, iPhone SDK 3.0, performance, graphics, AS3, .NET, FlaNN, NN, CV, youtube, shell, automake, mysql, postgres, JS, networking, scanner, security, core, linux, codecs, embedded, internet radio, internet video player, au1200, VoD, MPEG-1, MPEG-2, h.263, c, c++, arm, mips, busybox, Samsung, Windows, Linux, Networking, Database, Security, sipX, VOIP, IP-telephony, PBX, chat bot, Microsoft visual studio, reverse, x51, x86, AVR, IR RC, floating code, SAMBA, POP3, CIFS, SMB, antivirus, Embedded, Assembler, LED RG 16x8, Pascal, Deplhi, 2D, 3D, phone, RTOS, 64KB ROM, disassemble, sec, DTMF, tunes, voice, clock, calendar, white/black list, CallerId detection, line hold, voice messages, address book, outgooing/incoming calls