Anatolii Kurotych

Software Engineer

9 years of experience building production services for telecom and blockchain networks in both startups and established companies. Core expertise: system-level programming (Rust, C/C++), backend architecture, end-to-end system development on GNU/Linux, technical leadership, and team management. Active open-source contributor.

+380958795130	**akurotych@gmail.com**	**Lutsk, Ukraine**
Linkedin	GitHub	kurotych.com

Technical Skills

Programming Languages:

Primary: Rust, Python, C, C++, Bash

Familiar: Go, TypeScript, JavaScript, Solidity, Lua.

Infrastructure & Cloud: Linux, Docker, AWS, GitHub Actions, CI/CD Pipelines

Databases: PostgreSQL, MySQL, SQLite, Apache Iceberg, Trino

APIs & Interfaces: GraphQL, gRPC, REST API

Systems & Design: Distributed Systems, System Architecture, Concurrency

Work experience

Senior Software Engineer at Helium (Nova Labs)

(04/23 — 04/26) 3 yrs

Industry: Telecommunications, Blockchain

Tech stack: Rust, Python, Bash, PostgreSQL, GraphQL, gRPC, Protobuf, Docker, AWS, GitHub Actions

- Built a radio signal propagation service using **Rust**, **GraphQL**, and **gRPC**, with geospatial processing to support mobile coverage modeling and API-based data access in the Helium network.
- Designed high-throughput ETL pipelines processing hundreds of gigabytes of data daily. Ingested **Protobuf**-encoded data from **AWS S3** into **PostgreSQL** and **Apache Iceberg**, powering systems including the Helium Mobile Explorer and providing access via a **GraphQL API**.
- Drove architecture decisions for distributed Rust services supporting mobile coverage modeling and large-scale telemetry data processing in the Helium network.
- Contributed to the Helium Mobile Oracles (**Rust**) — implemented gRPC services, extended Apache Iceberg integration, and improved system reliability.
- Developed a suite of **Rust**-based services that run autonomously, consume minimal resources, and have operated in production with no incidents.

Tech Lead / Software Engineer at Minterest

(03/21 — 04/23) 2 yrs 1 mo

Industry: Decentralized Finance (DeFi), Blockchain

Tech stack: Rust, Substrate (Polkadot SDK), Solidity, Node.js, TypeScript, JavaScript, Bash, AWS, Docker

Tech Lead *(10/21 — 04/23) 1 yr 6 mos*

- Led a team of ~10 engineers to build a DeFi lending platform from scratch to private launch supporting multiple assets.
- Designed blockchain and web architecture solutions. Authored high-level design documents, requirements, and diagrams.
- Built CI/CD pipelines with CircleCI and managed AWS infrastructure via Terragrunt.
- Communicated technical strategy and project progress to C-level stakeholders.

Software Engineer *(03/21 — 10/21) 7 mos*

- Developed a lending protocol as a Polkadot parachain using **Rust** and Substrate.

Software Engineer (C/C++/Python) at PortaOne

(06/19 — 02/21) 1 yr 9 mos

Industry: Telecommunications

Tech stack: C++, C, Python, CMake

- Optimized and maintained high-load SIP servers (**C++**) on **Linux** handling thousands of concurrent calls.
- Modernized codebase using C++17 standards
- Reduced service compilation time by ~5x.
- Developed a **Python** testing framework for SIP services, reducing production bug rate.

Software Engineer C/C++, Team lead at Demlabs

(07/18 — 04/19) 10 mos

Industry: IT Infrastructure & Networking

Tech stack: C++, Qt, C, Python, CMake

- Led a team of 5 developers building the DiveVPN service (now KelvinVPN).
- Designed system architecture for cross-platform VPN services.
- Implemented a finite-state machine (FSM) to improve system stability.
- Packaged and deployed beta releases across Linux, Windows, macOS, and Android.
- Established project testing strategy and integrated CI pipelines.
- Contributed to cellframe-sdk — implemented networking components, stream protocol handling, encryption layers, and CI pipelines in C.

Software Developer Go/NodeJS at EssentiaOne

(10/17 — 07/18) 10 mos

Industry: Blockchain

Tech stack: Go, NodeJS, Solidity

- Designed and built a unified REST API in **Go** for interacting with multiple blockchains (Bitcoin, Ethereum) and decentralized storages (Swarm, IPFS, Storj).
- Built a **Node.js** web service powering a decentralized admin panel for managing user applications

---

Software Developer C/C++ at Demlabs

(01/17 — 10/17) 10 mos

Industry: Industrial Software, IT Infrastructure & Networking

Tech stack: C++, Qt, C, Python, CMake

- Developed a GUI for industrial machine control using **C++/Qt**.
- Optimized performance and extended features of cross-platform VPN client (**C++/Qt**) and **Linux** VPN server modules (**C**).

Education

Lesya Ukrainka Volyn National University (2024-2025) Master's degree in Computer Science

Lutsk National Technical University (2019-2022) Bachelor's degree in Software Engineering

STEP Computer Academy (2016-2017) Software development course (1 year)

Technical College LNTU (2011-2015) Associate Degree in Automotive Maintenance and Engine Repair

Achievements

- Developed the first open-source implementation of Schnorr digital signatures not based on OpenSSL, integrated into Trust Wallet and many other projects.
- Authored and presented the article *"Optimizing the Process of ER Diagram Creation with PlantUML"*, published in the *Proceedings of the 7th Workshop for Young Scientists in Computer Science & Software Engineering (CS&SE@SW 2024).* Read paper

Personal projects

- sqlant (2022) - CLI tool that generates textual PlantUML ER diagrams from live SQL connection strings to assist with database documentation and visualization.
- sipmsg (2019) - Parse and validate SIP Messages according to RFC3261 with Rust.

Certificates and Recommendations

Certificates and recommendations are available on LinkedIn.

Languages

Ukrainian(native), English(B2 – upper-intermediate)