# Vladyslav Tkach

# Software Engineer

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in vladyslav-tkach

#### **EXPERIENCE**

### Materialise - Mimics Enlight CMF

Software Engineer (C++, Python)

October 2021 - Present Kuiv, Ukraine

· Developed, tested, debugged, and documented a medical planner application for craniomaxillofacial surgical operations using C++ and Qt framework.

- · Strengthened Mimics Enlight cross-product platform and engaged in refactoring of existing code.
- · Applied the MatSDK library collection implementing new APIs to improve both performance and UX.
- · Worked within an agile team following **Scrum** methodology and actively participated in **cross-team** communication and collaboration.
- · Facilitated seamless **onboarding**, providing **mentorship** to new team members, fostering growth and integration.
- · Had experience with creating scripted UI tests using Mimics Python API and proprietary testing framework.

# $\underline{\text{Materialise}}$ - $\underline{\text{C++ Academy}}$

Intern (C++)

July 2021 - September 2021

 $Kyiv,\ Ukraine$ 

- · Worked on a **3D printing** project in a team following **Scrum** methodology.
- · Implemented 3D geometry algorithms and used Qt3D for custom rendering and camera controls.
- · Learned about and practiced C++17 thoroughly including hands-on STL.
- · Investigated **OOP** concepts as well as **design patterns** with exercises.
- · Studied high-level **debugging** and error handling, test-driven development(TDD) technique, profiling, and disassembly as well as parallel programming.

#### CERTIFICATIONS

### Ukrainian Rust Community - Rust Bootcamp

Rust, Rust backend

December 2023 - April 2024

Ukraine

- · Covered fundamentals of compiled languages: memory model, typing, polymorphism, ownership, etc.
- · Examined Rust concepts: memory management (Box, Pin), ownership management (Rc, Arc), dispatching (generics, dyn Trait), thread safety (Send, Sync), interior mutability (RefCell, Mutex), etc.
- · Practiced Rust idioms: newtype, typestate, memory replace, generic in type out, exhaustivity, sealing, etc.
- · Applied Rust infrastructure: chrono, chumsky, clap, config, im, mockall, proptest, quote, rayon, rust-argon2, serde, sha3, syn, tokio, tracing, etc.
- · Discovered **backend** web-development basics: database integration (PostgreSQL, sqlx, sea-query), HTTP server (axum, actix) and client (request), web API (REST, OpenAPI, GraphQL), auth (JWT, cookies).

# **EDUCATION**

#### Taras Shevchenko National University of Kviv

Faculty of Cybernetics and Computer Science

September 2019 - June 2023

Kyiv, Ukraine

· B.S. in Computer Science

## **SUMMARY**

Results-oriented software engineer with expertise in Rust, C++, and Python. Proficient in English (C1), native Ukrainian speaker and a dedicated Japanese learner (N4). With a background in medical product development with attention to details and delivering high-quality software solutions.