

Vladyslav Tkach

Software Engineer

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EXPERIENCE

[Materialise](#) - [Mimics Enlight CMF](#)

October 2021 - Present

Software Engineer (C++, Python)

Kyiv, 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.

[Materialise](#) - [C++ Academy](#)

July 2021 - September 2021

Intern (C++)

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](#)

December 2023 - April 2024

Rust, Rust backend

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 (**reqwest**), web API (**REST**, **OpenAPI**, **GraphQL**), auth (**JWT**, **cookies**).

EDUCATION

[Taras Shevchenko National University of Kyiv](#)

September 2019 - June 2023

Faculty of Cybernetics and Computer Science

Kyiv, Ukraine

- B.S. in Computer Science