Maxim Teplitskiy

Vancouver, BC | +1 (778) 869 5355 | maxtepli2014@gmail.com | **My Website & More Projects: deadfloppy.com**

TECHNICAL SKILLS

- **Software Tools & Platforms:** ROS2, STM32 family, Arduino, Git, Linux, FreeRTOS, Gazebo, Docker, GDB
- **Programming Languages:** C, C++, Python, Lua, Bash, R
- **Engineering Tools & Skills:** SolidWorks, OnShape, ANSYS, Abaqus, Simufact Welding, OpenCV
- **Languages:** English (native), Russian (native), Spanish (B2), Catalan (B1)

EDUCATION

Bachelor of Applied Science, Materials Engineering Sep 2021 – May 2026

University of British Columbia – Vancouver, BC

Relevant Coursework: Data Structures & Algorithms, Digital Circuits, Machine Learning in Production, Microelectromechanical Systems, Additive Manufacturing, Electronics Materials, Mechanics of Materials, Failure Analysis, Composite Materials

---

RELEVANT EXPERIENCE

Software Engineering Intern Jun 2025 – Aug 2025

SAFINA, a.s. – Vestec, Czech Republic

- Built an automated data collection and QA pipeline for assay lab data using Python, OpenCV and Convolutional Neural Networks, replacing manual work and saving ~20 hours/week
- Deployed the pipeline into the lab's daily workflow, working directly with the precious-metal refining team

Software Team Co-Lead / Communication Systems Team Lead Sep 2022 – Feb 2026

UBC Rover | Student Engineering Design Team – Vancouver, BC

- Architected and developed a long-range 5 GHz communication system reaching 100+ Mbps at 1 km+ range, and a separate auto-tracking antenna platform, using RTK GNSS, C firmware and control utility built with Tkinter & Python
- Led and managed a 30-member multidisciplinary team through full development cycles of software for an autonomous Mars Rover platform, including wireless communication, SLAM, and systems integration
- Competed in three international competitions, achieving 2nd and 3rd positions at CIRC

MECHATRONICS AND ROBOTICS PROJECTS

Autonomous Differential Drive Multiuse Platform Jun 2026 – Present

- Designed and built a multipurpose platform capable of autonomous navigation via ROS2 + Nav2 + 2D LiDAR & Gazebo simulation
- Designed and FDM-printed chassis, built the electrical system using STM32 for PID motor control, Raspberry Pi for ROS2 and navigation, reverse-engineered a LiDAR and wrote a custom C++ driver and parsing software

Helicoid Volumetric Projection Display Jan 2026 – Apr 2026

- Built an experimental display device capable of showing 3D objects via the Persistence-of-Vision phenomenon
- Developed a volumetric rendering pipeline using Unity with real-time frame-by-frame projection on a helicoidal geometry, multi-display output and GPU shaders for simulation and control of Teensy MCU, FDM-printed chassis & bearing, custom motor driver

Photogrammetric Surface Roughness Scanner System Nov 2025 – Dec 2025

- Designed and built a multi-camera photogrammetry rig that reconstructs 3D surface models of laser powder bed fusion (LPBF) alloy samples
- Developed the image-capture and model-analysis pipeline that measures surface roughness (Ra/Sa) and automatically flags defects, cutting inspection time by 50% compared with manual microscopy

More projects on my personal website: deadfloppy.com