## **Dmytro Chyruk**



## Personal details



**Dmytro Chyruk** 



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# Skills

Computer Vision, NLP, RAG,

LLM based Chatbots, AI agents

STT, W&B, OpenVINO

FastAPI, Docker, Git, Jira, Math

# Languages

English (Fluent)

Ukrainian (Native)

# **Employment**

#### **ML/CV** Research Engineer

Oct 2024 - Aug 2025

#### FlightMind.AI

Conducted research and development in the field of computer vision, focusing on image matching techniques. Explored and compared various methods, such as template matching and keypoint-based approaches. Designed and tested feature extraction and similarity evaluation pipelines. Actively participated in the experimental process to refine matching accuracy and robustness.

Technologies: Python, Pytorch, OpenCV, C++

#### C++/UE4 Game Developer

Dec 2023 - Sep 2024

#### Wide Rails

Working on indie story game. My duties were to extend already created logic, create new actors, subsystems, mechanics and work with external open-source libraries. C++ code was preferable and used wherever it's possible.

(Game details are NDA-protected)

Technologies: C++, Blueprints, UE 5.1

#### C++/UE4 Game Developer Intern

Apr 2023 - Jul 2023

#### FracturedByte

During the internship I was developing Zombieland game. That's a third-person story shooter with different types of weapons and enemies, that also includes different mechanics of them.

Technologies: C++, Blueprints, UE 4.27

## Education

# **Masters of Mathematical Methods of Artificial**

Sep 2024 - Present

Intelligence

Taras Shevchenko National University of Ukraine, Kyiv

#### **Bachelor of Applied Mathematics**

Sep 2020 - May 2024

Taras Shevchenko National University of Ukraine, Kyiv

## Courses

DeepLearning.Al Aug 2023

Course: TensorFlow Developer Credential ID: WR6ZJ9DZ5F7S

**Samsung IT-School** May 2019

Course: Application programming for Android

**Step IT Academy** Jun 2019

Course: Junior Computer Academy

You can see my pet projects on the next page

# Pet Projects

#### Object tracking with unique identifiers

Built a real-time video tracking solution that can follow and re-identify same objects across different video streams. The system works with live webcams, video files, and YouTube streams, and ensures each object keeps a consistent ID even if it disappears and reappears later. The project includes a console interface for running locally as well as a server—client setup for larger video processing tasks. It automatically resolves conflicts when multiple objects are detected. The setup can be adapted for various use cases such as security, traffic monitoring, or analytics.

Technologies: OpenCV, YOLO, RT-DETR, ChromaDB, FastAPI, TorchReID

#### **Multimodal Knowledge Agent**

A web-based application that allows users to interact with a custom knowledge base using text and voice. The system supports uploading different types of documents (PDF, Word, spreadsheets, presentations, etc) that may include both text and visuals. Then processes them into searchable chunks, stored in a vector index, and retrieved when users ask questions.

Technologies: Streamlit, Whisper, Groq, ChromaDB, Docling

#### **Visual Transformer**

Created and trained ViT model for classification task from scratch, based on "Attention is all you need" article. Also trained model on CIFAR10 to compare results with SOTA solutions.

Technologies: Visual transformers, Attention module, OpenCV, PyTorch