# Samandar Mirjalilov

## Technical Skills

Languages: Python, JavaScript, SQL (PostgreSQL, MariaDB), VBA

Deployment: FastAPI, Flask, Streamlit, Flutter, Docker, Playwright, Hetzner Cloud

Data and ML: PyTorch, Pandas, Geopy, Tesseract

Tools: Git, Linux

Spoken Languages: English (Native), Russian (CEFR B1), Arabic (CEFR A2)

# Experience

## Warwick Manufacture Group - Automation Engineering Intern

Jul. 2024 - Sep. 2024

- Engineered an Excel Macro using VBA to automate an STPA step, slashing the workload from 3 weeks to 30 seconds.
- Improved analysis consistency by 10% by implementing dynamic data validation lists based on UCA types.
- Ported core VBA logic to a scalable Python script using Pandas and Openpyxl, creating a foundation for an app.

## Uzum - Backend Engineer Internship

Jul. 2022 - Sep. 2022

The first unicorn in Central Asia with operations in fintech, e-commerce, and food delivery.

- Built a Python(Geopy, Pandas) pipeline to geocode over 5,000 client locations extracted from the MariaDB database.
- Integrated a geospatial visualisation module into the company's KPI dashboard, enabling analysis of client density.
- Halved the debt recovery timeline for over 1,000 cases by developing an automated tracking dashboard by extracting necessary data from the MariaDB database.

# **Open Source Contribution**

## DVC - Added -exp hide-workspace command | Python, Git

Jul. 2025 - Aug. 2025

Leading open-source MLOps platform for data versioning and experiment tracking.

- Engineered the exp hide-workspace command in Python and wrote unit tests to ensure functionality.
- Submitted changes through Pull Request #10798 and collaborated with the maintainers leading to a successful merge.
- Authored the official documentation (PR #5427) and identified three additional undocumented commands.

## **Projects**

### MNIST Digit Recognition Service | PyTorch, Machine Learning, Streamlit, Docker

Jun. 2025 - Jun. 2025

- Trained a Convolutional Neural Network (CNN) on the MNIST database, achieving over 98% accuracy in just 5 epochs.
- Setup an interactive whiteboard hosted on Hetzner CAX11 VPS with Streamlit.
- Engineered a Docker containerised PostgreSQL database to persist user submissions and results.

#### Automated Sorting Validation for Hacker News | Javascript, Playwright, Automated Testing | Feb. 2025 - Feb. 2025

- Built an automated Playwright script to validate the sorting of a 100 articles from Hacker News.
- Implemented pagination handling allowing the web scraper to scrape articles beyond the intial 30 on page load.
- Engineered a JSON logging system to capture article data and record any detected sorting errors.

#### Automated Image to Arabic Flashcard App | Flutter, FastAPI, Python(Tesseract)

Jan. 2025 - Feb. 2025

- Built a Flutter application connected to a FAST API backend from a boilerplate reducing development time by 40%.
- Achieved over 90% accuracy on OCR scans with Tesseract using minimal preprocessing.
- Integrated the OpenAI API to automatically categorize extracted text for flashcard generation.

#### Education

#### University of Warwick

Oct. 2022 - Jul. 2025

Bachelor of Science in Mathematics

## Bexley Grammar School

Sep. 2020 - May 2022

IB:Mathematics HL(7), Economics HL(7), Physics HL(6), Politics SL(6)

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#### Interests

Judo(Won Gold in London Youth Games), Basketball, Reading(Classical Lit., Sports Science), Strength Training