


# KYRYL LEBEDIN

2nd year student in Durham University  
Computer Science BSc Hons

 Portfolio

 Durham, UK

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 [github.com/kyryl-lebedin](https://github.com/kyryl-lebedin)

 [/in/kyryl-lebedin/](https://in/kyryl-lebedin/)

## ABOUT ME

Focused on Backend Development, AI/ML Engineering, Data Science.  
Relocated to the UK three years ago due to the war in Ukraine. Despite various challenges, completed A-levels in one year, secured a place at Durham University ([Newspaper Article](#)), and achieved 71% in the 1st year, predicted first class honors.

## PROJECTS

GitHub Links

### Algorithm Analysis AI Service

[/algorithm\\_analyze](#)

Determine the time efficiency of algorithms using a machine learning model. [Preview](#)

- Designed the dataset and trained a machine learning model using the Random Forest algorithm and statistical analysis.
- The model classifies algorithms into polynomial, log-linear, and other time complexities.
- Built a full-stack website with a backend, frontend, and custom UI using Django, Jinja, and JavaScript.

**Skills:** Python, Django, SQL, Scikit-learn, matplotlib, JavaScript

### Atom Bank Financial AI Advisor

[/durhack-2024](#)

Developed with team of four during 24 hours of Hackathon competition for Atom Bank

- Predict the stock price for next year of S&P500 company of your choice with insights from the AI Advisor.
- Trained an LSTM model on a dataset of 10-year stock price periods from S&P 500 companies.
- Used Microsoft Autogen to build an agentic workflow for LLMs, generating insights about companies and their risk factors.

**Skills:** Python, TensorFlow, Keras, Microsoft Autogen, Django, JavaScript, Bulma

### Nutrition Management Fullstack Web App

[/Recipes-manager](#)

Easily track your macro- and micronutrient intake and discover new recipe ideas with this interactive app.

- Built a full-stack application with Express.js, a NoSQL database, and a dynamic frontend.
- Integrated an open-source food database, view recipes based on selected ingredients, and add custom recipes.
- Wrote unit tests with Jest and ensured code quality using ESLint.

**Skills:** JavaScript, Node.js, Express.js, Eslint, Jest, Bootstrap, CSS, HTML

## WORKING ON

### IBM Mobile Educational App with AI Integration

Working for IBM client partnering with Durham University to improve experience on IBM SkillBuild platform. Building Game Show Mobile Game with AI Host to add interaction into learning on platform.

**Skills:** Agile, OOP, React Native, Tailwind, IBM Granite, IBM Cloud, SQL, Cloud Computing

### Efficient Video Editor

Optimizing the video editing process by leveraging efficient data structures and algorithms in C++. Implemented various video filters, such as reversing the video and swapping channels. The program is designed specifically for Linux systems.

**Skills:** C++, Linux, Bash, Memory Management, Algorithms, System Programming

## EXPERIENCE

### Software Development, Bot for Corporate Management 2023-2024

Invisible Outsource Ukraine

- Assisted in implementing an OOP architecture for bot-user interactions.
- Integrated SQLAlchemy as an ORM to manage PostgreSQL databases.
- Developed a module with CRUD operations, user authentication, and authorization using PostgreSQL.
- Worked with the Google API to fetch company-provided datasets for bot integration.
- Contributed to Docker containerization and deployment processes.

Repository copy (sensitive information removed): [github.com/kyryl-lebedin/TelegramBotPortfolio](https://github.com/kyryl-lebedin/TelegramBotPortfolio)

**Technologies used:** Python, my-telegram-bot, Docker, PostgreSQL, SQLAlchemy, Google API.

**Reference:** You can contact my team leader at: [techrahovski@gmail.com](mailto:techrahovski@gmail.com)

## EDUCATION

2023 - 2026	<b>Computer Science BSc, Durham University</b>	University
	1st year average grade - 71%; predicted first class honors.	
2022 - 2023	<b>A levels, St John's School, Bishop Auckland</b>	Sixth Form
	Math, Further Math, Physics.	

## CERTIFICATIONS

- IBM Machine Learning with Python, with Honors [Certificate](#)
- IBM Introduction to Deep Learning & Neural Networks with Keras [Certificate](#)
- DeepLearning.AI, Stanford University: Supervised Machine Learning [Certificate](#)

## SKILLS

**Technical Languages:** Python, SQL, JavaScript, C++, C, HTML/CSS, LaTeX.

**Frameworks:** Django, Flask, Express, React, React Native, Jest.

**Libraries:** TensorFlow, Keras, Matplotlib, Scikit-learn, pandas, NumPy, sockets, threading, os.

**Spoken Languages:** Fluent in English, Ukrainian, and Russian.