

Maksym Yahnyshchak

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Links: [Portfolio](#), [LinkedIn](#), [GitHub](#), [Leetcode](#), [Home.co.uk](#)

Employment History

Software Developer at Home.co.uk, Remote, Cambridge

June 2022 — Present

Tech stack (LAMP) consists of Perl, SQL(MariaDB), Linux, and Tortoise SVN.

Examples of issues I worked on:

- Developed web scrapers that enabled the collection of 100k+ UK properties.
- Created web scraper analogy scripts with website relations detection and URL mapping.
- Migrated data from 3rd-party XML and CSV data sources into SQL tables to improve data accuracy and availability.
- Used algorithms to speed up duplicate image detection by 90%.
- Implemented hashing functions to encode unique property IDs and decode data in HTML.
- Maintained security (Suspicious IP detection and blocking).
- Created report-generating scripts exposing patterns in data.
- Optimized SQL to speed up queries by 50%.
- Wrote unit tests and documentation.

Work placement at Microsoft, Cambridge

July 2022 — July 2022

During the two-week work placement:

- I participated in the research group discussions and analysis to develop an object recognition initiative for blind individuals ([Tai X](#), [Project Tokyo](#)). Wrote computer vision scripts to stimulate new ideas (Python, Azure).
- I helped to develop a tool for Microsoft amid the pandemic, simulating Cambridge's office 3D work environment for the VR experience (C#, Unity).

Projects

File system reader | C, FAT16, HxD, Valgrind

github.com/yahnyshc/fat16FileReader

Built reader of FAT16 image to simulate Linux shell with support for basic commands like ls, cat, etc. Used the HxD tool to investigate binary data + Valgrind to debug C memory leaks.

Email drafts manager | React, Node.js, Express, MongoDB, Vercel

tasks-yahnyshc.vercel.app

Full stack website to track work issues and email drafts. Build a backend Express API that interacts with MongoDB. Used responsible practices to enable user signup/login with web tokens and hashing. The front end was built with React.

AI voice assistant | Python, Spacy(NLP), Chat GPT API

github.com/yahnyshc/Jarvis

Developed an AI voice assistant script(during Durhack hackathon) that supports commands like Google something, open VS code, generate an image, or get question answers from Chat GPT API.

Presentation tool desktop app | Java, Swing, Maven, GitLab

As part of a university group project developed a desktop app similar to PowerPoint. This experience included various development aspects, such as design reports, teamwork, version control, presentation, and agile methodology.

Education

Computer Science BSc Hons, Lancaster University, Lancaster

October 2022 — June 2025

Year 1 - 86.6% (first class):

- Software Development (C, Java).
- Digital Systems (Boolean algebra, C, Debugging, MIPS Assembly).
- Information Systems (SQL, HTML, PHP).
- Fundamentals of Computer Science (Discrete Maths, Algorithms, Data structures, C).
- Mathematics minor (R, Calculus, Further Calculus, Probability, Statistics, Linear Algebra).

Year 2 - 86.2% (first class):

- Advanced Programming (Java, OOP, JavaScript, Erlang).
- Operating Systems (C, OS, Hardware).
- Computer Networks (Python, TCP/IP, Web server, Proxies, Network Layer, IPv4/v6).
- Databases (Java, SQL, ER diagrams).
- Software Design (UML, Design patterns, OOP).
- Human-computer interaction (JavaScript, User Evaluation, Group work).
- Computer Science Group Project (Java, App development, UI, Agile, Waterfall).
- Social, Ethical & Professional Issues in Computing.

Computer Science BSc, Lviv Polytechnic National University, Lviv, Ukraine

September 2021 — July 2022

Studied C, Python, OOP principles, data structures, algorithms, and mathematics. Achieved an average grade of 91.3% for the completed first year. I was awarded a bursary from the university for my academic achievements. Left due to the war in Ukraine.

Upper Secondary School, School #92 Lviv, Lviv, Ukraine

September 2010 — June 2021

Software Development School, It Step Academy Lviv

June 2017 — June 2019