

# Nikita Kroshko

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## Education

### University of Manchester

Sept 2024 – Jun 2027

BSc (Hons) in Computer Science

(expected)

- **Coursework:** Algorithms and Data Structures, Programming Languages & Paradigms, Software Engineering 1 and 2, Processor Microarchitecture, Introduction to Artificial Intelligence, Database Systems, Microcontrollers, Distributed Systems, System Architecture
- **Degree Qualification:** First Class Honours in Computer Science (84.8%) top 10 in cohort

## Projects

### C++ Web Browser

GitHub

- Designed and implemented a multi-tab desktop web browser using C++ and Qt Creator, featuring intuitive navigation controls, a functional URL bar, and responsive window management.
- Integrated the Qt WebEngine module to support modern browsing features including seamless JavaScript execution, HTML/CSS parsing, and advanced WebGL rendering.
- Built in user-friendly features such as intelligent pop-up blocking, automatic tab renaming with page titles, and efficient browsing history handling for improved usability.
- Gained practical experience with networking APIs, RESTful API integration, and event-driven GUI programming by delivering a polished, fully functional desktop application.

### Noom Racing Quiz

University Gitlab

- Multiplayer quiz racing game built with React, Node.js, TypeScript, and Tailwind CSS.
- Process up to 10 players WebSockets connections for each lobby with a hypothetical limitless lobby count.
- Implemented real-time multiplayer mechanics where players answer trivia to speed up cars and avoid obstacles, synchronizing game state via WebSockets for smooth, low-latency gameplay.
- Managed a 5-person front-end team, overseeing development tasks and enhancing skills in socket communication, teamwork, full-stack collaboration, problem-solving, and mentorship.

## Skills

- Problem Solving, Critical Thinking, Communication, Teaching, Analysis, Computer Science, Mathematics
- Programming (Java, Python, C, C++, Ruby, Bash, JavaScript, HTML, CSS, React, RISC-V, Verilog, Git)
- Spoken Languages and Fluency Level (English C2, Russian C2, German B1, Serbian A1, Macedonian A1)

## Experience

### AWS APAC Solutions Architecture Job Simulation

Manchester, UK (Forage)

Amazon Web Services

June 2025

- Built a single scalable hosting solution using AWS Elastic Beanstalk to improve app performance.
- Configured EC2, RDS, and Auto Scaling for improved reliability and optimized speed.
- Explained the system architecture in clear, concise, non-technical terms for client clarity.
- Provided a detailed estimated cost breakdown based on usage patterns and AWS pricing tiers.
- Identified \$500 in monthly savings for the assigned team through migration from the existing cloud provider.

## Academic Awards

### University of Manchester

Sep 2024 - Jun 2027

Sep 2024 - Jun 2025 Netcraft prize (Top 10 student in computer science cohort)

### International School of Belgrade Awards

Aug 2021 - May 2024

Aug 2023 - May 2024 Higher Honors Twice, and Salutatorian

Aug 2022 - Jun 2023 Honors and Higher Honors

Aug 2021 - Jun 2022 Honors and Higher Honors