

AKBAR JURAEV

Software Engineer · Distributed Systems & Machine Learning

Birmingham, UK | hello@akbarjuraev.com | akbarjuraev.com | linkedin.com/in/akbarjuraev | github.com/abyyyworld | ORCID 0009-0008-7883-6699

EDUCATION

University of Birmingham

BSc Artificial Intelligence & Computer Science | First Class predicted

Birmingham, United Kingdom

Sep 2025 – Jun 2028

TECHNICAL SKILLS

PROGRAMMING	Python, C++, C#, Java, TypeScript, JavaScript, SQL, Bash, data structures and algorithms
BACKEND & INFRA	REST APIs, WebSocket and UDP networking, Docker, Traefik, CI/CD (GitHub Actions), Git, Linux, SQLite, pytest, canary rollout, edge inference
FRAMEWORKS	PyTorch, NumPy, Pandas, OpenCV, Node.js, React / Next.js, Unity 6 / URP
ROBOTICS & ML	MuJoCo, NVIDIA Isaac Lab, ROS 2, Franka Panda, RGB-D perception, imitation learning, CNNs, ablation design, closed-loop evaluation

SELECTED PROJECTS

Cicatrixa | a service that repairs its own production crashes

Python, Docker, Traefik, agent pipeline | live at cicatrixa.com [GitHub](#)

- Detects a crash in a live app and pins the cause to a line, then **refuses to patch until it has written a failing test** that reproduces the bug in a throwaway container. No reproduction, no fix.
- Accepts the patch only once that test passes and the existing suite stays green, then ships it behind a **20%** Traefik canary that auto-promotes or auto-rolls-back on error rate, with the previous version held at weight zero as the path back.

Role Radar | live job tracker with CV tailoring

Python, JavaScript, GitHub Pages, Greenhouse / Ashby / Lever APIs [GitHub](#)

- Over **3,000** open roles re-checked daily against each employer's own board, so closed roles drop out on their own: a public job tracker shipped and maintained (Python, scheduled runs, GitHub Pages).
- Built a browser tool that rewrites a CV for a chosen job and exports a PDF, gated by a check that blocks any claim the original CV does not support.

ROS 2 Perception Pipeline | C++ and Python latency benchmark

C++, rclcpp, ROS 2 Jazzy, Franka Panda, RGB-D, inverse kinematics [GitHub](#)

- Built the same RGB-D to Franka pipeline twice, C++ and Python, behind one frozen spec and an equivalence gate that must pass before any timing is quoted: the composed rclcpp node held **30 Hz** at **27 ms** end to end, **zero** frames dropped over three runs.

Model Scaling Study | 32x training data, GPU-parallel

Python, NVIDIA Isaac Lab, PyTorch, MuJoCo, experiment design [GitHub](#)

- Established the seed budget a grasp benchmark needs before its result carries: seed alone moves success **3.29** points against **1.06** per doubling of data, so every figure here is reported over multiple seeds (NVIDIA Isaac Lab, MuJoCo).

EXPERIENCE

Robotics & Software Engineer

Drone EduTrain, venture-backed, UzCombinator S2 | Python, PyTorch, LiteRT, ONNX

Jun 2026 – Present

Runtime

- Shipped the drone inspection app the company demos to investors: detection runs on the MK15 handheld itself, with no network, as an installable Android build and an offline browser version.
- Chose the detector on what it reaches at the cadence that handheld can hold, not at a matched one: a candidate leading **70%** to **66%** at a shared 250 ms cycle takes **1.93x** the time per look, so at its real 500 ms cycle it reaches **52%**.
- Real-time tracking carries an identity across frames, so a person is counted once rather than once per frame, and detection is decoupled from drawing so the interface stays responsive. Each flight leaves a video, a per-detection CSV and stills.
- Fly the aircraft on production test flights and work the hardware directly: see how it behaves outdoors, trace what I find back with the team, and decide from that whether a build ships. Split the system with the other engineers and own my part end to end.

Research Assistant

University of Birmingham, School of Computer Science | Python, Unity, C#

Birmingham, United Kingdom

May 2026 – Present

- Collaborate with the project's other developers in a shared codebase: work on branches, put changes up for review, and revise on their feedback. Contributed macOS support, a backend comparison contract and an executable determinism gate, all merged.
- Build the software the studies run on (VR task scenes, condition management, real-time event logging), run the sessions with participants, and do the analysis that turns them into results.
- Co-author on a paper under review at **IEEE VR 2027**, **first author** on one in preparation for **ACM UIST 2027**.

Information Technology Intern

IT PARK Uzbekistan

Tashkent, Uzbekistan

Aug 2025

- Placement at Uzbekistan's national technology hub, **2,800+** member companies and **\$392M** in annual service exports, across its engineering, HR and management functions.

AWARDS

- **Informatics (Competitive Programming) Olympiad of Uzbekistan: 1st** at school stage, then school representative at the Bukhara regional round and the national rounds feeding **IOI** team selection, **two years running**.