

Alisher Ortikov

Email address: mcpeblocker@gmail.com | Website: mcpeblocker.uz

• ABOUT ME

I am a result-oriented learner. I've started off as a full-stack software engineer, gradually transitioned into academic research in HCI and now learning quantum computing while applying technological solutions in sustainability domain. I like running and reading detective books in my free time.

• EDUCATION & TRAINING

17/08/2026 - 30/01/2027 - LAUSANNE, SWITZERLAND

EXCHANGE SEMESTER - EPFL

French (A1); Quantum Computing, Software Enterprise, Hydrology, Machine Learning; Running, Hiking.

28/08/2023 - Current - DAEJEON, SOUTH KOREA

B.S. IN COMPUTER SCIENCE & ELECTRICAL ENGINEERING - KAIST

Korean (A2); Quantum Information/Software, Computer Systems, Entrepreneurship; Community Development.

02/09/2019 - 29/05/2023 - KHIVA, UZBEKISTAN

CAMBRIDGE INTERNATIONAL A LEVELS - PRESIDENTIAL SCHOOL IN KHIVA

Computer Science (A*), Math (A*), Physics (A).

• WORK EXPERIENCE

ONSQUARE - SEOUL, SOUTH KOREA

● SYSTEMS ENGINEER INTERN 22/06/2026 - 14/08/2026

- Analyzed ongoing software project development. Identified and reduced memory leaks by 70%.
- Implemented TDD approach for automated verification of changes and for autonomy of AI agents.

● SOFTWARE ENGINEER INTERN 20/06/2024 - 22/08/2024

- Implemented Conditional Types in platform's custom type system [TypeScript, redom]

29/12/2025 - 19/06/2026 - DAEJEON, SOUTH KOREA

RESEARCH INTERNCOLLABORATIVE SOCIAL TECHNOLOGIES LAB

- Enhanced AI agents with cognitive architectures for proactive moderation in social networks [CoALA, LLM]
- Built monitoring platform for AI agent simulation [NodeJS, React, SQLite]

20/01/2025 - 19/01/2026 - REMOTE, SOUTH KOREA

SOFTWARE ENGINEERTEAMBL

- Published mobile app of the platform to App & play stores within a month. [Django, React Native, Expo]
- Implemented real-time messaging with WebSockets. [Socket.IO, ASGI]
- Implemented client-side caching based on UX complaints, improving Speed Index. [Redux, RTK Query]
- Maintained and integrated new features to the backend & infrastructure via TDD approach. [pytest]

● PROJECTS

15/09/2026 - 31/10/2026

Quantum Computing for water problems in Senegal. Leveraging quantum computing algorithm to better simulate material configurations of membrane used to filter fluoride from water in order to discover an affordable and effective filtering material. Project is done as a team through NYUAD Hackathon to be evaluated as a candidate for presenting in UN Water Conference.

01/09/2026 - 30/01/2027

Acoustic Biodiversity Monitoring Monitoring system for birds at EPFL campus through acoustic means. Equipped edge hardware with a custom ML model to transmit only the wildlife sounds and not the sensitive audio (e.g. human conversations). [Python, TinyML, ESP32, C++]

Link make.epfl.ch/projects/14/make-genorobotics-14

16/05/2026 - 15/07/2026

QUBO encoding of Irrigation Scheduling for QAOA Formulation of rotational irrigation scheduling as Quadratic Unconstrained Binary Optimization (QUBO) problem and a benchmark for 4 solvers - exact, heuristics, simulated QAOA and QAOA on IBM Heron hardware. [Qiskit, Python, Gurobi]

Link arxiv.org/abs/2607.13374

20/06/2026 - CURRENT

AmuFlow System for water consumers in Uzbekistan to monitor their usage and save water. [GIS, Hydrology]

Link amuflow.org

● CERTIFICATIONS

26/03/2026 MIT & KNU

MIT Global Startup Workshop Hackathon

Presential - Presented application of quantum-inspired algorithms for real-time services in warehouse industry. Learned about MIT's "Disciplined Entrepreneurship" startup framework from Kevin D. Johnson and investment insights from Sebastian Barriga.

20/03/2026 Quandela

Honorable Mention, Q-volution Hackathon

Project Based - We introduced a hybrid framework to tackle computational problem of financial derivatives pricing, utilizing an ensemble of fixed photonic quantum reservoirs. We outperformed 10 different classical and quantum baselines achieving sub-millisecond inference time. Our team was selected among Top 5 Winning Teams for the Quandela Challenge.

16/01/2026 KAIST & MIT

KAIST-MIT Quantum Information Winter School

Blended - Completed multi-dimensional curriculum ranging from theoretical lectures on superconducting and other platforms to cutting-edge quantum experiments being conducted in academia and industry.

25/11/2025 IBM & Yonsei/SKKU

Qiskit Fall Fest

Presential - 'Winning Achievement' in hackathon of the Qiskit Fall Fest events in South Korea [Qiskit].

29/08/2025 IBM

Quantum Excellence, Qiskit Global Summer School 2025

Online - Learned quantum computing from online lectures led by IBM Quantum experts and interactive labs on hands-on exploration of key quantum concepts ranging from the history of quantum computing to advanced quantum algorithms and error-correction. [Python, Qiskit]