

Vladimir Frunza

Independent Expert-Consultant | Urban Greening & Sustainable Development
Yerevan, Armenia | +374 91 183932 | hex@umonkey.net

Professional Summary

Expert-consultant combining extensive practical experience in horticulture, tree nursery management, and ecosystem restoration with skills in systems analysis and complex project management.

Co-founder of the "Kanach Yerevan" civic initiative, deeply involved in Yerevan's urban greening challenges, including inventory, analysis of municipal practices, and protection of the urban forest.

Key Competencies

- Nursery Management: oversight of the complete seedling cultivation cycle (from seed, including stratification, to P9/C3), specializing in cold-hardy species.
- Soil & Plant Biology: deep understanding of the role of mycorrhiza, permaculture techniques, composting methods, and restoration of degraded soils.
- Urban Forestry: understanding of the specific urban environment (soil, irrigation, stress factors); planting survival risk analysis; field assessment of tree health.
- Project Management: experience leading projects from concept to implementation, both in the non-profit sector ("Kanach Yerevan") and the tech industry.
- Systems Analysis: skilled in decomposing complex problems, strategic planning, and assessing long-term risks to ensure resilient solutions.

Relevant Experience

Co-Founder, Nursery Manager | "Yasny Les" Tree Nursery (Pskov Region, Russia)
(2012–2022)

- Managed a family tree nursery, specializing in the cultivation and adaptation of cold-hardy forest and ornamental species for a challenging climate.
- Led an ecological restoration project on 3 hectares of abandoned agricultural land, designing and implementing a diversified, multi-story agroforestry system suitable for machine cultivation.
- Conducted experimental plant introduction, successfully adapting species from adjacent climatic zones (e.g., Sugar Pine, Bald Cypress) to the local environment.
- Planned and planted a 2-hectare public Manchurian walnut garden.
- Planted a 3-kilometer oak alley.
- Provided consultancy on species selection and agricultural techniques for creating private forests and parks in the region.
- Gained extensive hands-on experience in the full horticultural cycle: from seed collection to crown formation and pest/disease management.

Co-Founder, Core Team Member | "Kanach Yerevan" Civic Initiative [myga.am]
(2023–Present)

- Engage in direct dialogue with municipal authorities (Greening Department, district heads) to resolve operational issues and discuss strategic initiatives, including the pilot implementation of modern arboricultural practices.
- Perform public reviews (expert analysis) of municipal pruning and maintenance practices, preparing recommendations for improvement.
- Developed and implemented a practical guide for citizens on documenting and reporting damage to trees (e.g., from construction or excavation) via official online channels.
- Conduct field analysis and monitoring of Yerevan's urban forest health.
- Act as a consultant for citizen-led initiatives for tree protection and planting in urban neighborhoods.
- Create and distribute educational materials (articles, guides) on the benefits of urban biodiversity and biocontrol methods (attracting birds, beneficial insects).

Project Lead, Architect | "Trees of Yerevan" Open-Source Project [yerevan.treemaps.app]
(2024–Present)

- Founded and currently lead the development of a mobile web application for field inventory, mapping, and data collection on urban trees.
- The project combines technological solutions (Rust, TypeScript) with the practical needs of urban activists and arborists to create an accurate map of the city's urban forest.
- Leading R&D on data collection automation (including the use of consumer drones and cameras) to increase efficiency and reduce costs compared to industrial solutions.

Additional Professional Experience

Principal Software Engineer | EFC GmbH
(2020 – 2025)

- Led a development team in transforming a highly unstable monolithic architecture into a stable, scalable microservice-based system (AWS), resulting in radically increased performance.
- Coached and mentored two senior developers, successfully promoting them to Team Lead positions.
- Responsible for systems design, strategic planning, and management of complex technical projects.

Professional Training & Certifications

ISA Certified Arborist Candidate
(Expected: 2026)

Practical Training & Self-Study
(2012–Present)

- Extensive hands-on experience managing the "Yasny Les" nursery, covering the full horticultural cycle, dendrology, and ecosystem restoration.
- Continuous self-study of global best practices in arboriculture and urban forestry.