

# Dmitri Manajev

Zurich, Switzerland / Remote

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## SUMMARY

Entrepreneur, Product/Tech Lead, Senior Software Engineer — creative and passionate about building impactful technology.

Reinforcement Learning & Robotics engineer with **15+ years** shipping production software across mobile, web, blockchain, and AI systems.

Deep expertise in RL paradigms (single/multi-agent, offline/online, model-based), Generative AI, and Imitation Learning/Behavior Cloning—implemented in PyTorch and JAX (Unity ML-Agents, PettingZoo, Gymnasium). Hands-on robotics with ROS 2, C++, and Python for RL policy deployment, navigation, manipulation, and sim-to-real transfer on differential-drive/holonomic bases and 6-DoF manipulators.

Focus on reproducible training/evaluation/deployment (Docker, CI), deployable control, real-robot lab work, and experimentation tooling in autonomous agents and planning/control.

M.Sc. in Software Engineering & Mathematics (Bologna-equivalent Master's), St. Petersburg State University (SPbSU), 2012.

Founder of Menutka, Instacam, and CryptoApps.

## SKILLS

- **RL:** PPO, SAC, TD3, TRPO, A2C/A3C, DDPG, MAPPO, HAPPO, MADDPG, RLPD; multi-agent (PettingZoo, SMACv2); 2+ years experience
- **Robotics:** ROS 2 (incl. ROS 1); C++/Python; CMake; URDF, Xacro; tf/tf2 (ROS transforms); Nav2, MoveIt 2; MuJoCo, Gazebo, Isaac Gym; LeRobot; sim-to-real, continuous control; 2+ years hands-on lab work
- **AI/ML/Tools:** PyTorch (primary), JAX, TensorFlow, NumPy, OpenCV, Weights & Biases, Hugging Face Hub (incl. LeRobot), Unity ML-Agents, Gymnasium, PettingZoo
- **Infra & DevOps:** Docker, Git, Linux (Ubuntu), CI/CD pipelines, Jenkins, Ansible, Fastlane, AWS (CFN, CodeDeploy), nginx; continuous deployment expertise
- **Project & Product Management:** Jira, Confluence, Trello, TeamGantt, Balsamiq/Sketch (wireframing), backlog grooming, PRDs/specs, agile processes; 3+ years experience
- **Languages:** Python (6+ years), C++ (5+ years), JavaScript/TypeScript (10+ years), Swift/Objective-C (4+ years), Solidity (4+ years), PHP/C#/Ruby (3+ years), SQL/NoSQL(MySQL, PostgreSQL, CouchDB, MS SQL)
- **Technologies & Frameworks:** Full-Stack (Node.js, Vue.js, React.js), iOS (Swift/Objective-C, CocoaPods, Xcode), Blockchain (Ethereum/Tron/EOS, EVM, Truffle, ethers.js, OpenZeppelin), REST/APIs (Google, Meta, social platforms)

## EXPERIENCE

### • **Manajev AI Labs (independent)**

Zurich, CH

*AI/RL/Robotics Specialist* Dec 2024 – Present

- Built reproducible RL training and evaluation pipelines for multi-agent and continuous-control tasks using Unity ML-Agents and PettingZoo.
- Prototyped ROS 2/C++ control loops for RL policy integration; developed containerized environments for on-device deployment.
- Ran algorithmic benchmarks and published artifacts (Weights & Biases reports, Hugging Face model zoo).
- Hands-on lab work with differential-drive and holonomic mobile bases, 5-DoF and 6-DoF manipulators + grippers; implemented navigation, waypointing, basic manipulation, and sim-to-real transfer using ROS 2 (incl. LeRobot for imitation learning).

- **CryptoApps Manajev (independent)** Zurich, CH  
*Founder & Engineer*  
   ○ Designed, built, and shipped full-stack decentralized applications (DApps) on Ethereum and Tron blockchains using Solidity, Node.js, and Vue.js.  
   ○ Conducted security analysis, audits, and testing of smart contracts for games, casinos, and DeFi projects.  
   ○ Developed automated trading/MEV-aware transaction routing systems and blockchain bots (including frontrunning/priority execution strategies) for DeFi and games on Ethereum/Tron/EOS.  
   ○ Optimized blockchain node infrastructure (Ethereum/Tron/EOS) for performance, cost, and latency; implemented custom protocol extensions, including adding missing Ethereum features to the Tron Java Node for advanced game strategies.
- **Swissmeda AG** Zurich, CH  
*Product & IT Manager / Architect / DevOps*  
   ○ Managed Software Engineering team; facilitated meetings, 1:1s, organized IT backlog and projects.  
   ○ Led migration from legacy tools (SVN, Windows 2008..) to modern stack: GitHub, Jira, Confluence, AWS, Linux.  
   ○ Designed and Architected AWS cloud infrastructure (CloudFormation, Ansible); standardized CI/CD pipelines (Jenkins, Fastlane) across multi-brand apps.  
   ○ Authored product specs/PRDs; managed product roadmap; aligned regulatory constraints; drove iOS, desktop & backend releases.  
   ○ Architected and shipped the **smop** iOS app for 3D implant plan review; improved release cadence & reliability [App Store](#).
- **Swissmeda AG** Zurich, CH  
*Senior iOS Engineer*  
   ○ Architected multi-brand **smop** iOS app: 3D implant plan viewing, slice navigation, case review on iPad/iPhone.  
   ○ Automated build/deploy pipeline (Fastlane, CocoaPods); collaborated with surgical planning team on product requirements.
- **SpotMe (Shockfish SA)** Lausanne, CH  
*Senior Full-Stack Engineer*  
   ○ Built real-time event features (voting, photo sharing, check-in, surveys, data viz) across backend & mobile web (Node.js, CouchDB, d3.js).  
   ○ Delivered multiple client projects on tight deadlines; collaborated with project managers across concurrent workstreams.
- **Life Ideas** St. Petersburg, RU  
*Creator / Mobile Software Engineer*  
   ○ Created **Instacam**, first unofficial Instagram client for Windows Phone 7; received **media coverage** and broad user adoption.  
   ○ Built photo filter engine with 7 social network integrations; developed Menutka restaurant app.
- **Lanit-Tercom** St. Petersburg, RU  
*Intern → Software Engineer*  
   ○ Developed mobile apps (iOS, WP7, Android) for outsourcing clients: golf social network with GPS tracking, restaurant chain apps, enterprise tools.  
   ○ Developed project management web app (Gantt charts, calendar, wiki, forums, role-based access, email notifications).  
   ○ Developed WPF/.NET desktop GUI for FOSS analytical instruments: remote management, configuration, and calibration.

## EDUCATION

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- **St. Petersburg State University(SPbSU)** St. Petersburg, Russia  
*M.Sc. in Software Engineering & Mathematics (Specialist Degree, Bologna-equivalent Master's)*  
   ○ Thesis: Collaborative recommendation system for tourist attractions.

## CERTIFICATIONS & TRAINING

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- **Robotics Developer (Masterclass)**, The Construct — *Sep 2025 - Jan 2026*
- **Humanoid Robotics Certificate (Barcelona)**, The Construct — *Dec 2025*
- **Deep Reinforcement Learning (Nanodegree)**, Udacity — *2025*
- **Machine Learning with PyTorch (Nanodegree)**, Udacity — *2023*
- **Full Stack JavaScript Developer (Nanodegree)**, Udacity — *2023*
- **Data Analysis with Pandas & NumPy**, Udacity — *2023*