Dmitri Manajev

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SUMMARY

Entrepreneur, Team Lead, Product Manager, Architect, Senior Software Engineer, iOS Developer—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   *2018 – 2024*
  - 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   *2015 – 2018*
  - 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   *2014 – 2015*
  - 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   *2013 – 2014*
  - 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   *2012 – 2013*
  - 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   *2010 – 2012*
  - 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

- **St. Petersburg State University(SPbSU)**   St. Petersburg, Russia
  M.Sc. in Software Engineering & Mathematics (Specialist Degree, Bologna-equivalent Master's)   *2007 – 2012*
  Thesis: Collaborative recommendation system for tourist attractions.

CERTIFICATIONS & TRAINING

- **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*