Adam Gazdiev

SOFTWARE ENGINEER | SAAS SYSTEMS · INTEGRATIONS · 3D GEOMETRY

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PROFILE

Software engineer building production SaaS functionality across Node.js/TypeScript, Angular, Python and MongoDB. At Airobot NV, delivered billing and commerce integrations, cross-system authentication workflows, automated testing and the roof-measurement engine used by FastScan. Work combines changes to established multi-repository systems with development of 3D geometry tools. Previously worked in IT project management.

PROFESSIONAL EXPERIENCE

Software Developer | Airobot NV (AiroCollect), Belgium

Apr 2025 – Present

AiroCollect: production SaaS for building analysis and drone-based 3D modelling. IBO training until Oct 2025; permanent contract since Oct 2025.

- **AutoMeasurement / FastScan (2025–26).** Designed and built the roof-measurement engine that interprets reconstructed OBJ meshes using surface normals, coplanar face grouping and contour analysis to identify ridges, valleys, hips and gables for quotation measurements. Extended it to existing drone datasets with user-corrected footprints.
- **Stripe billing and subscriptions (2025).** Implemented Checkout, Billing, Subscriptions and SEPA Direct Debit, including verified webhooks with replay protection, a custom tax service and auditable payment records in MongoDB.
- **WooCommerce and authentication (2025).** Integrated in-app subscription purchases and a JWT-based login bridge between the Angular SaaS and WordPress; configured secure cookies and Content Security Policy.
- **Identity and data integrity (2025).** Worked on identity synchronisation across Argon2 and WordPress credential systems; built a structured comparison and logging service for MongoDB and WooCommerce data.
- **Automated testing and CI (2026).** Introduced 183 unit tests and 27 Playwright browser tests with deterministic mocks; made them Jenkins gates before Docker builds.
- **Roof reconstruction R&D (2026–present).** Developing a geometry-first method to reconstruct roof topology from point clouds, with explicit handling of failure cases. Built ReconFrame for controlled photogrammetry stages, run auditing and reproducibility.
- **Invoice generation (2025).** Implemented a PDF invoice pipeline across multiple repositories and inconsistent source data.

AI Response Evaluator - Russian & STEM | Outlier (freelance, remote), USA

2024 – 2025

- Evaluated mathematical, physical and technical reasoning in Russian-language LLM responses; independently checked solutions and revised answers for training quality.

IT Project Manager | LLC Stroy Tech, Russia

2018 – 2023

- Led migrations of acquired businesses to accounting, ERP and HR systems; coordinated cross-functional teams, budgets and schedules, and worked with developers on ERP/CRM customisation.

INDEPENDENT PROJECTS

- **AutoSurface (2026).** Built and deployed a geospatial web app for analysis of Flemish terrain elevation data (DHMV II, EPSG:31370), including raster processing, 3D visualisation, authentication and PDF reporting. Angular 17, Flask/Python, PostgreSQL, Rasterio, Shapely, PyProj, Caddy and systemd. (www.autosurface.be)
- **ReconFrame (2026).** Built and released an open-source Linux photogrammetry workflow and diagnostics tool around external CUDA-enabled COLMAP. Implemented photo auditing, reproducible Fast/Quality/Custom reconstruction, stage-level recovery, evidence-linked Pipeline Inspector and 3D point-cloud previews. 272 automated tests passed in release validation; MIT license. (github.com/Maysker/ReconFrame).
- **PointFrame (2026).** Released an open-source point-cloud preparation tool with versioned Linux .deb packages (github.com/Maysker/PointFrame).
- **Point-cloud ML experiments (2025).** Explored roof-edge and roof/non-roof classification with Random Forest, XGBoost (CUDA) and PointNet/PointNeXt; evaluated results with IoU and F1. Research only, not deployed.

TECHNICAL SKILLS

Languages & web: Python, TypeScript, JavaScript, PHP, SQL; Node.js, Express, Angular, Flask, REST APIs, JWT, Stripe, WooCommerce.

3D & geospatial: Open3D, PDAL, CloudCompare, COLMAP, RANSAC, OBJ/PLY, Rasterio, Shapely, PyProj, DTM/DSM, WCS.

Data & ML: MongoDB, PostgreSQL, MySQL, scikit-learn, XGBoost, PyTorch.

Testing & delivery: Playwright, unit and contract testing, Jenkins CI, Docker, Git, Linux, Caddy, systemd.

EDUCATION

Full Stack Developer - Professional Certification
SyntraPXL, Genk, Belgium | 2023–2024

Postgraduate Research Studies (Aspirantura) - International Relations
RUDN University, Moscow | 2007–2010
Passed candidate qualifying examinations; dissertation not defended.

Master in International Relations
RUDN University, Moscow | 2001–2007
Graduated with honours.

LANGUAGES

Russian and Ingush - native · English and Dutch - professional working proficiency