Andrei Gabriel Ion

Lead/Principal Platform Engineer

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Platform engineer with over two decades of experience across desktop, web and infrastructure. I build systems and products from scratch, or turn fragile legacy ones into something reproducible, automated and safe to change: containerized environments, managed secrets, tested releases and low-risk cutovers.

Skills

- ***Cloud platforms*** · *AWS (EC2, ECS, EKS, S3, RDS, Aurora, ElastiCache, VPC, Transit Gateway, Route 53, SES, Systems Manager, CloudWatch, KMS, Secrets Manager, CloudFormation), VMware Cloud on AWS (vCenter), Azure (Entra ID, AKS, Container Apps, Bicep), GCP (Firebase), Cloudflare (DNS, CDN, Pages, Workers, R2)*
- ***Containerization, Orchestration, IaC*** · *Docker, Docker Swarm, Kubernetes, Rancher, Portainer, Flux, Argo CD, Terraform, Ansible*
- ***CI/CD, Release management, Collaboration*** · *Git, GitLab, GitLab CI, GitHub, GitHub Actions, Bitbucket, Bitbucket Pipelines, Jira, Confluence, SVN, Unfuddle, Trac, yum repositories, Docker registries*
- ***Observability*** · *Elasticsearch/Logstash/Kibana, Filebeat, Metricbeat, Prometheus, Grafana, Loki, Grafana Alloy, syslog-ng, OpenTelemetry, PagerDuty, Dozzle*
- ***Secrets strategies, Identity and access management*** · *HashiCorp Vault, SOPS, 1Password, SSO, OAuth 2.0, JWT, TOTP, OpenLDAP, RADIUS (Radiator)*
- ***Operating systems*** · *RHEL, Rocky Linux, CentOS, Amazon Linux, Debian, Ubuntu, Alpine Linux, Talos Linux, Windows, WSL, macOS*
- ***Networking*** · *nftables, macvlan, keepalived (VRRP)*
- ***Ingress, Routing, HA, Service discovery*** · *nginx, HAProxy, Traefik, Caddy, Apache HTTP Server, PHP-FPM, ProxySQL, Orchestrator, PgBouncer, Patroni, etcd, Consul, Shotover*
- ***Databases, Caching, Storage*** · *MySQL, PostgreSQL, Oracle, Valkey/Redis, SQLite, HSQLDB, MinIO, NFS*
- ***Email*** · *Postfix, Dovecot, SPF, DKIM, DMARC*
- ***Programming languages*** · *Go, TypeScript, JavaScript, PHP, Python, Java, Bash, Perl, Objective-C, Swift, C, C++, C#, Smalltalk, AppleScript*
- ***Web development, Desktop development*** · *Symfony, React, Storybook, Electron, Capacitor, JavaFX, Swing, Spring, .NET, Seaside, VisualWorks, V8, node-gyp, ProGuard, Inno Setup, DMG Canvas, hdiutil, JSP, HTML, CSS*
- ***QA engineering, Characterization testing*** · *Playwright, Cypress, Jest, PHPUnit, JUnit, Mailpit, PHPStan, Rector, PHP-CS-Fixer, Checkstyle, ShellCheck, Prettier, CSpell, SonarQube*
- ***AI-assisted development, LLM tooling*** · *Claude Code, GitHub Copilot, MCP servers, Prompt engineering, Agentic workflows, Ollama, llama.cpp*

Work

2012 – 2026 | ***Contractor*** | *QuickWeb Info SRL* | *Software consultancy for US clients* | *Bucharest*

Handled requirements, development, delivery and support discussions directly with end-clients.

End-client industries: Telecom (broadband ISPs), Managed Services, Cybersecurity, Tech Support

> *2025 – 2026* | ***Principal Platform Engineer*** | *VMware Exodus* | *infrastructure migration*
>
> *Project objective: Move legacy applications and services from VMware to Docker Swarm, driven by vendor licensing price hikes.*
>
> - Cut over 4 weeks ahead of the hard deadline; the migration process moved the data and brought the Swarm production environment up within 30 minutes. The same process was validated daily in staging from production backups.
> - Owned: secrets management, config management, service identity and data migration strategies; base images for applications; build and deployment automation; containerization of supporting services; HA setup for services; blue-green deployments; developer experience.
> - Advised and contributed: application containerization; networking; infrastructure; monitoring; disaster recovery strategy; documentation.
> - Scale: 20+ people involved; 7 web applications, 2 RADIUS daemons and their supporting services (5 database servers, 4 mail daemons, 3 cache servers, 20+ cron jobs) as primary objectives; 100+ production services from 50+ images; staging, local-staging, ephemeral and dev environments.
> - Side effects on services outside Swarm: base images adopted to patch PHP2Shell; secrets rotation and service identity adopted into the wider secrets strategy; ephemeral development environments replacing local ones.
>
> *Containerization, Secrets management, Blue-green deployments, High availability, Data migration*

*2024 – 2025 | **Principal Platform Engineer, Technical Lead** | Site Builder Code & Runtime Upgrade | web applications*

Project objective: Upgrade a legacy multi-tenant site builder to PHP 8 and run it on ECS.

- Led a team of 4 developers, hands-on.
- Delivered 3 months ahead of the cutover deadline.
- Discovery revealed 5 internal library dependencies and the ecosystem architecture (4 other internal websites, 2 databases, a cache server and a mail daemon).
- Introduced characterization testing to the team.
- Built DevOps tooling letting developers spin up the web applications and their ecosystem locally within 5 minutes, with ecosystem configuration, secrets setup and environment definition abstracted away, enabling them to run locally the same validation as CI.
- Guided the team in organizing and optimizing CI tasks, bringing CI time under 30 minutes.
- Guided the team in organizing and optimizing ephemeral environment start-up and seeding, bringing ECS spin-up time under 10 minutes.
- Rapid feedback cycle allowed completion of the code and runtime upgrade with only one month dedicated to the sub-task.

Legacy modernization, Containerization, Characterization testing, Ephemeral environments, CI optimization

*2015 – 2025 | **Lead Platform Engineer, Technical Lead** | Platform Redesign | platform engineering, web applications*

Project objective: Replace legacy development and release workflows with a platform for developing, validating and monitoring a modern generation of web applications.

- Own initiative, led a team of 2 engineers for 10 years.
- Hosted the code, documented and automated the processes around it for 20+ engineers and 10+ non-technical staff.
- Designed the platform, maintained it and helped retire it at end of life.
- Hosted GitLab and CI runners, moved issue tracking onto it, documented the branching, issue, release validation and build flows, trained the teams. When mandated, moved it all to Atlassian within a couple of months and kept maintaining it there.
- Introduced DevOps practices into legacy web application workflows: brought all code into git within 3 weeks, enrolling it in git-flow under the pressure of recovery from a disaster affecting the development environments; built and supported local Docker-based development environments; created automation for patch-based releases and rollbacks on staging and production, covering code changes and schema migrations. Automated release notes generation, covering manual configuration and secrets management.
- Introduced DevOps practices into legacy client application workflows: automated build, static analysis and test pipelines across Java, C++, C, Swift and Objective-C applications.
- Web Application Platform: Releases as RPM packages into self-hosted yum repositories; installed in Docker images and on new servers with modern httpd and PHP; production, staging, QA and Docker-based ephemeral per-branch environments; feature flags; automated tests and builds; continuous delivery up to QA; automated tracking of the manual staging and production release processes; caching; centralized logging.
- Built and delivered 6 projects on the platform: activation and registration landing pages; on-call routing for ISP phone support; an internet-facing XML API; the backend of a ground-up password manager rewrite; a unified sign-in, user management and multi-factor authentication portal; an update server controlling which client application builds reach devices.

Internal developer platform, DevOps adoption, CI/CD, Release automation, Feature flags

*2012 – 2025 | **Desktop Software Engineer** | Client Security Suite | desktop applications*

Project objective: Deliver and support Windows and macOS clients for: online backup, sync and file sharing; Wi-Fi diagnostics; antivirus.

- Applications built or rebuilt, depending on the inherited project state.
- Maintained throughout, helped retire at end of life.
- Owned desktop development and delivery end-to-end: UI; background daemons; native libraries and OS integrations; inter-process communication; embedded databases; registration flows; backup and sync algorithms; network monitoring; packaging and releases.
- Contributed: requirements; acceptance testing; backend APIs; consistency with the other platforms' apps; user and troubleshooting guides; support escalations.
- The backup, sync and file sharing client reached a long-term maintenance state within 3 years, including a ground-up rewrite; after its release, no issues reached development. The Wi-Fi diagnostics tool was built within a month, reusing architecture and processes, inheriting UX and quality characteristics.

Cross-platform desktop development, Native OS integration, Background services, Inter-process communication, Backup and sync

*2006 – 2012 | **Founding Engineer** | adaco Engineering SRL | Software consultancy for Swiss clients | Bucharest*

Bootstrapped the company with client projects the company founder carried over from my previous employer, then moved into product development.

End-client industries: Financial Services, Banking, Music Copyright

Java, Swing, Oracle PL/SQL, Smalltalk, Seaside, VisualWorks, HTML, CSS, JavaScript

*2008 – 2012 | **Technical Lead** | Process DNA (PDNA) | desktop applications*

Project objective: Create a business process management (BPM) suite letting banks diagram their processes, document them, and generate the forms and workflows that automate them.

- Led a team of 3 developers.
- Owned architecture and delivery end-to-end: diagramming; role-based access; form designer; generated workflows; document management.
- Assisted the company founder with requirements and support.

Business process management, Workflow automation, Form generation, Role-based access control, Document management

*2006 – 2008 | **Developer** | Mainframe UI Modernization | web applications*

Project objective: Replace the terminal interfaces of a COBOL mainframe system with web applications.

- Delivered 2 web applications as the sole technical person.
- Owned implementation, validation, delivery and support end-to-end.

Legacy modernization, Mainframe integration, Web development, Application support

*2004 – 2006 | **Contractor** | IP Devel SRL | Software development outsourcing company | Bucharest*

End-client industries: Human Resources, Music Copyright

JSP, Spring, C#, .NET, Smalltalk, Seaside, VisualWorks, HTML, CSS, JavaScript, SharePoint

*2005 – 2006 | **Developer** | Mainframe UI Modernization Pilot | web applications*

Project objective: Validate web applications as a replacement for the terminal interfaces of a COBOL mainframe system.

- Built the pilot website in a team of 3 developers, together with the platform vendor's consultants.

Legacy modernization, Proof of concept, Web development

*2004 – 2005 | **Developer** | Internal HR Tools | web applications*

Project objective: Support recruitment and employee communications with internal tools.

- Contributed to a website and SharePoint components.

Internal tools, Intranet development, Web development

References

- Available on request from collaborators at QuickWeb or its clients, on any of the projects listed.

Education, Awards and Languages

- Bachelor in Economic Informatics, Bucharest University of Economic Studies (ASE), 2004 – 2008.
- 3rd place, National Olympiad in Informatics, 2003. Qualified for the extended squad for IOI, BOI and CEOI.
- Romanian (native), English (full professional proficiency).

Interests

- **Hobbies**: Hattrick (champion), Poker (retired), Video Games (on cooldown), Board Games (explorer).
- **Entertainment**: Science Fiction (believer), Fantasy (nostalgic), TV Series (completionist), Comedy Shows (realist).
- **Health**: Running (slowly), Swimming (floating), Hiking (walking), Tennis (late bloomer).
- **Life**: Stock Market (bull), Travel (lightly), Food (consumer), Media (lurker).