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Summary

Director of Technology and long-time builder with a career across software engineering, infrastructure, and manufacturing. I lead calm, pragmatic teams that deliver Linux and cloud systems, DevOps automation, and resilient ecommerce platforms while decades of Zen practice keep the room steady under pressure. I stay close to the keyboard, understand the whiteboard, and use AI with an eye toward privacy and measurable outcomes.

Key Metrics (2025)

36
Public Assets Scanned

Continuously monitored via HostedScan + OWASP ZAP with 33 findings closed in the past 60 days and zero critical/high issues in backlog.

36
Active GitLab Projects

11 users, 2 groups, 2,204 merge requests, 739 CI pipelines (avg 565 successes / 58 fails) and 16 managed SSH keys.

1.0M
Lifetime Posts

Mattermost workspace with 7 teams, 40 channels, 313 calls, and alert channels wired to uptime, upgrade, helpdesk, GitLab, and web-critical events.

1,487
Tickets YTD

Zammad helpdesk processed ~150–206/month in Jun–Aug with ≥97% close rate, 68% resolved inside 24 hours (56% inside 8 hours), zero reopen events.

Uptime Kuma monitors 31 services (GitLab, Helpdesk, Shopify APIs, FTP, chat, docs, etc.) as part of 24×7 observability feeding Mattermost.

Current Focus

Manufacturing and Ecommerce Platforms

Building and operating manufacturing and ecommerce platforms with 99 percent uptime targets.

Coaching Teams

Coaching teams through lean, testable delivery practices that keep production stable.

AI-Assisted Knowledge Stack

Scaling an AI-assisted knowledge stack and security programs that keep data, people, and compliance boundaries protected.

Core Strengths

DevOps and Infrastructure Automation

- CI and CD design, infrastructure as code, container orchestration, and repeatable releases on self-hosted runners.
- Observability, incident response, high-availability design (replication, backups, CDN), and pragmatic SLO tracking for hybrid environments.

Technology Leadership and Strategy

- Strategic roadmaps that connect executive goals to team-level delivery.
- Calm stewardship for blended internal, offshore, and vendor teams.

Software Development and Engineering

- Full stack delivery across Python, PHP, Perl, C++, SQL, and TypeScript.
- Code review, automated testing, and performance tuning for legacy and greenfield systems.

Security and Privacy

- Network hardening, IAM, HostedScan/ZAP/Nikto assessment loops, and zero-trust rollouts.
- Privacy-preserving AI workflows, regulated-data guardrails, and tabletop response drills.

AI, Data, and OCR

- Workflow design using open and commercial models, RAG pipelines, and model selection.
- OCR digitization for historical archives with validation and quality control.

Open Source Projects

Deep Research Privacy Edition

Creator and Maintainer (2024 to Present)

- Created a privacy-focused research tool combining Venice.ai's uncensored language models with Brave Search capabilities.

- Implemented robust privacy features ensuring user data protection and local processing.

- Developed clean, maintainable TypeScript codebase with comprehensive documentation.

- Integrated multiple AI models and search providers with intelligent rate limiting and error recovery.

Interactive Resume

Builder (2024 to Present)

georgelarson.me/resume.html

- Shipped a static, terminal-themed resume with AI-assisted lens summaries running on Cloudflare Pages.

- Serves the canonical resume.txt for printing and diffing while keeping inference tokens server-side for privacy.

- Highlights saved lenses and quick prompts so visitors can explore leadership, manufacturing, or privacy angles in seconds.
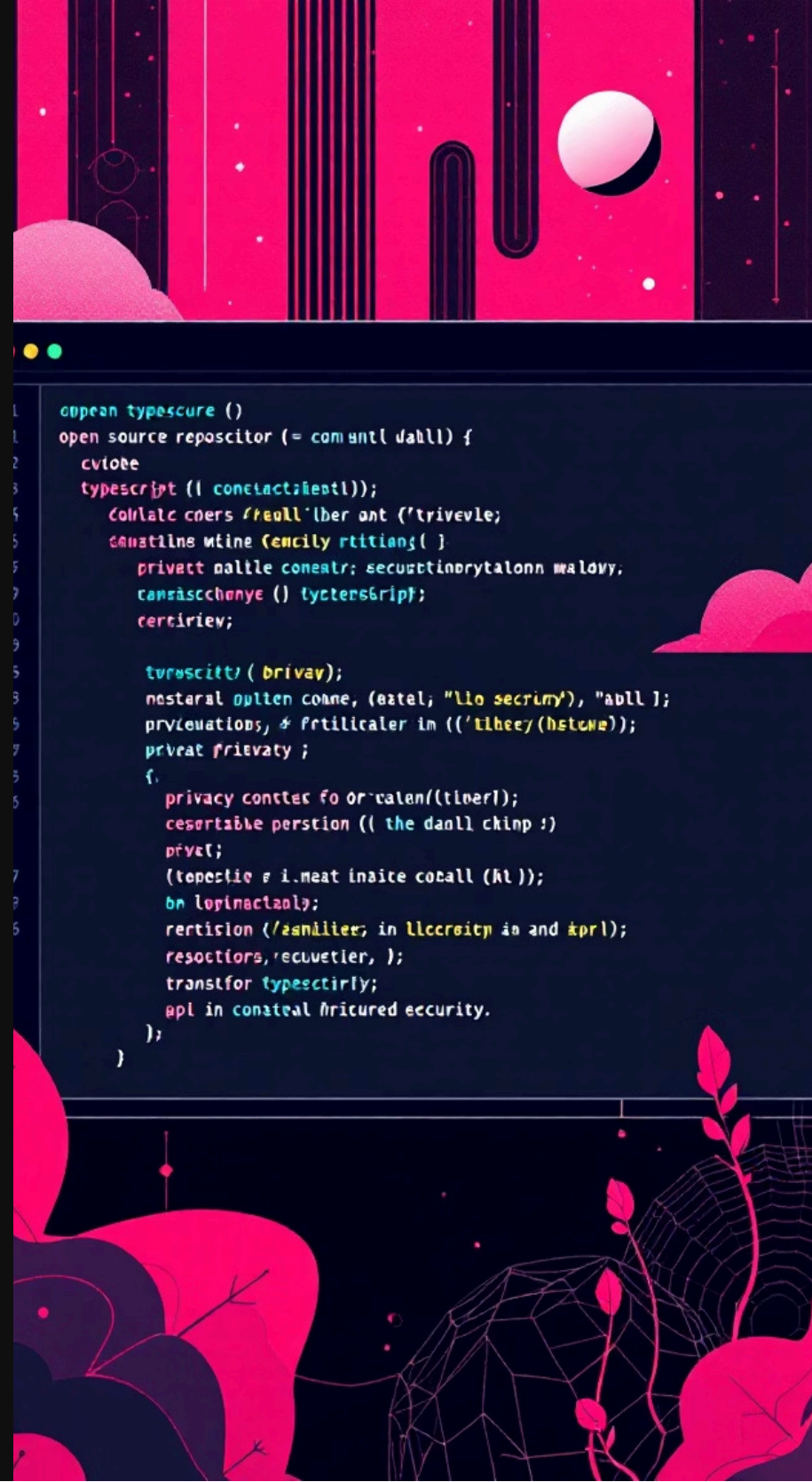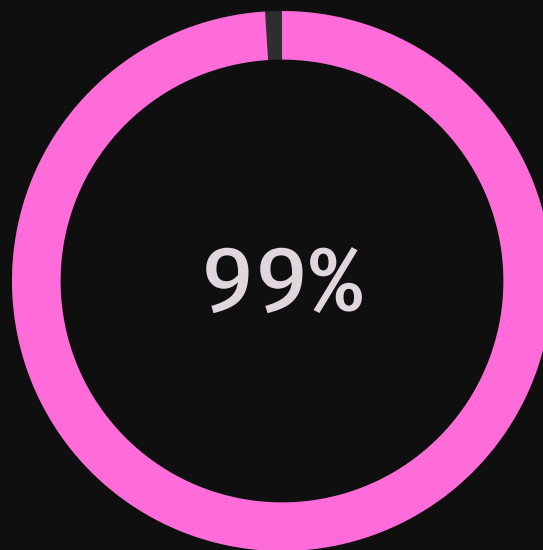
Director of Technology, FM Expressions

2018 to Present

Lead technology strategy for a mid-size manufacturing company serving ecommerce channels.
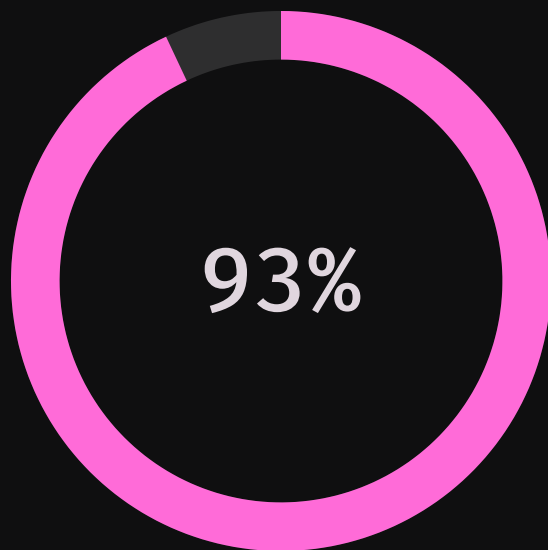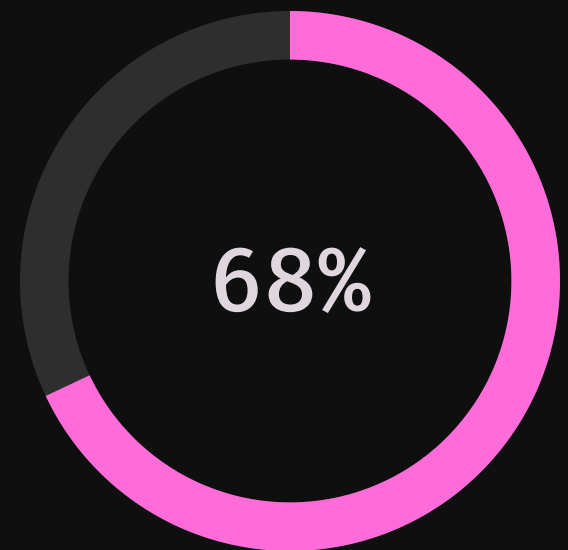
93%
Database Performance Improvement

Improved database performance by 93 percent while driving critical systems to 99 percent uptime; cut MySQL slow-query volume by 96 percent to accelerate incident response.

99%
System Uptime

Achieved 99 percent uptime for critical systems through high-availability design and proactive monitoring.

68%
Tickets Resolved in 24 Hours

Zammad helpdesk resolves 68% of tickets inside 24 hours (56% inside 8 hours) with zero reopen events.

Key Achievements

- Built an AI-assisted knowledge stack (Wiki.js, Gitea, Qdrant, ETL pipelines) that captures production logs, transcripts, and operator notes so teams can search, surface, and act on institutional knowledge in real time.

- Resolved conflicting manufacturing documentation, created a style guide and glossary, and instituted monthly and quarterly review cycles to keep safety and operations guidance consistent.

- Reduced a 1.03 GB legacy software repository (4,656 binary artifacts) to a clean, LFS-ready codebase, eliminating clone failures and enabling sustainable development practices.

- Hardened hybrid infrastructure with Authentik SSO, HashiCorp Vault, automated TLS renewal, firewall hardening (iptables, UFW, CrowdSec, fail2ban), DMARC/SPF/DKIM enforcement, HostedScan/OWASP ZAP sweeps across 36 public assets, and Red Sift OnDMARC (p=reject, 1.5M emails/month at 99.48% compliance) to keep critical/high findings at zero and close 33 issues in the past 60 days.

- Run GitLab (36 projects, 11 users, 739 CI pipelines) and Mattermost (7 teams, 40 channels, 1M posts) as the collaboration core tied into Redmine (22 cross-functional projects), Zammad (200 tickets/month with 68% closed inside 24 hours), and Uptime Kuma (31 monitors feeding alert channels).

- Maintained high-availability platforms: dual MySQL replicas, VMware ESXi with Datto backups, Active Directory, Cisco Meraki switching, SonicWall/pFSense firewalls, and a staged CDN migration from self-hosted edges to Contabo and Cloudflare.

- Built the Mashy internal dashboard plus tooling such as Psono vault, PrivateBin, phpMyAdmin/Adminer, DBeaver, knowledge mining utilities, and status pages so teams access credentials, data stores, and observability in one click.

- Driving adoption metrics for the knowledge stack (semantic search, embeddings, saved lessons) to quantify time-to-answer gains for production and customer operations.

- Captured Meteor print-head PCAPs and tuned Nikto, Metasploit, and custom fuzz rigs to secure industrial protocols while migrating remote access from VPN to zero-trust policies.

- Implemented Agile delivery, ticketing, and analytics to align product, operations, and finance on throughput, defect, and margin targets.

Senior Software Engineer and Manager, Universal SmartComp

2009 to 2016

- Helped scale the company from a 50 person startup to a national leader in medical billing.

- Designed EDI frameworks, ACH processing, ERP integrations, and a medical payer portal.

- Led internal and offshore teams across development and Linux infrastructure.

- Acted as security response lead and Linux SME; migrated project management to Redmine with custom plugins.

- Built OCR bill entry validation that reduced errors and sped turnaround.

Impact

Scaled infrastructure and development practices to support national growth in the medical billing industry, implementing secure EDI processing and automation that reduced errors and improved operational efficiency.

Earlier Career Highlights

Software Engineer and Team Manager, Sony Electronics — **1**

2004 to 2009

- Directed software development, logistics, and technical operations for the Pittsburgh Customer Satisfaction Center.
- Designed and ran the TiVo firmware upgrade station for the United States market.
- Built hardware testing suites for CD drives, set-top boxes, PCBs, televisions, cameras, and MP3 players.
- Created an AS/400 parts ordering interface that saved millions in operational spend.
- Managed more than 50 combined technical and non-technical staff.
- Developed a VT-52 terminal emulation system used for inventory management.

Maintenance and Automation Technician, T. Marzetti Company — **2**

2000 to 2004

- Led second shift maintenance for robotics, conveyors, and packaging machinery.
- Programmed PLCs and tuned sensors, actuators, and industrial controls on the production line.

Earlier Career Highlights — **3**

1990s to 2000s

- Software developer and webmaster for non-profit organizations.
- Engineer for The Sounding Board, a psychotherapeutic BBS in Columbus, Ohio; built custom C++ modules for Major BBS and kept one of the first internet-connected BBS systems alive.
- Contract developer for Daifuku USA working on material handling support systems.
- Two-time Business Professionals of America chapter president; regional competitor in extemporaneous speech.

Technical Skills and Volunteer Work

Technical Skills

Languages: Python, Perl, PHP, C++, SQL, TypeScript

Web and Data: MySQL, PostgreSQL, WordPress, Redmine, Gitea, Wiki.js

Infrastructure: Linux, Apache, Nginx, Caddy, IIS, Kubernetes, VMware ESXi, Datto backups, Cisco Meraki, SonicWall, pfSense, CrowdSec, Let's Encrypt/ACME, Cloudflare CDN

Cloud: AWS, Azure, Google Cloud, Proxmox

Security and Identity: Authentik, HashiCorp Vault, Psono, CrowdSec, HostedScan, OWASP ZAP, Nikto, Metasploit, SSL/TLS, iptables, UFW, fail2ban, DMARC/SPF/DKIM, DefectDojo, OpenVAS, zero-trust network design

Collaboration: Agile, Scrum, Kanban, Redmine, Zammad, GitLab, Mattermost, CryptPad

Mail Systems: iRedMail, Postfix, Dovecot

Commerce: Shopify, custom ecommerce platforms, payment integrations

AI and ML: Venice.ai integration, Model Context Protocol, applied research workflows, RAG design, model governance, privacy safeguards

Vector Search: Qdrant, semantic embedding pipelines, AI-assisted knowledge bases

Monitoring & Dashboards: Uptime Kuma, HostedScan, Red Sift OnDMARC, Dashy internal portal

Volunteer Work

- Systems administrator for a volunteer Linux community, digital radio station, and open shell environment.
- Long-term support for animal shelters, including events, outreach, and facilities work.
- OCR and digitization project contributor for historical legal documents.