

Peter Marchetti

Senior Systems / Architecture-Focused Engineer

Summary

Senior technical leader and systems engineer with a career spanning enterprise IT, public-sector platforms, and modern AI-assisted system development. Operates effectively in ambiguous problem spaces: framing unclear problems, designing solution architectures from available tooling, and taking end-to-end ownership from concept through implementation. Combines deep systems thinking with pragmatic execution, using modern tooling (including AI) as leverage to improve outcomes, while preserving human judgment. Optimizes for durable solutions, clarity, and long-term system health over short-term throughput.

Core Strengths

- System and architecture design in ambiguous environments
- Problem framing and exploratory technical work
- End-to-end ownership of complex systems
- AI-assisted development and automation design
- Cross-domain pattern recognition (technical, organizational, human)
- Translating business and operational needs into coherent technical systems
- High-trust, low-theater engineering culture leadership

Experience Founder — Technomancy Laboratories (Freelance)

Jan 2025 – Present

Founded an independent systems and AI research practice focused on building tools that emphasize memory, agency, and emergent behavior in complex systems.

- Designed and implemented exploratory AI-assisted systems that combine persistent memory, task orchestration, and human-in-the-loop workflows
- Built and shipped multiple experimental platforms exploring autonomous agents, async task coordination, and system self-observation
- Authored technical and conceptual work on AI systems, system design, and the role of memory and meaning in software architecture
- Operated as sole architect and implementer, owning design decisions, trade-offs, and execution end to end

Senior Solutions Engineer (Public Sector) | Feb 2015 – Jul 2025 AvePoint — Arlington, VA (Remote/Hybrid)

Note: While situated within the sales field organization, this role functioned as a Lead Systems Engineer for sovereign cloud and high-compliance (FedRAMP/DoD) environments. I was responsible for the structural integrity, security posture, and operational viability of multi-tenant SaaS and hybrid cloud deployments.

- **Architected large-scale, mission-critical data governance frameworks** for public sector entities, managing the lifecycle and security of PII/CUI across Microsoft 365 and Azure environments for organizations with 50k+ users.
- **Engineered cross-domain identity and access strategies**, resolving complex systemic failures in Entra ID (Azure AD) and SharePoint permission inheritance to ensure "Zero Trust" compliance.
- **Led technical "Discovery to Delivery" cycles**, translating highly ambiguous legislative mandates (e.g., CMMC, ITAR, HIPAA) into concrete technical specifications and automated governance workflows.
- **Served as the "Human Bridge" for Product Engineering**, identifying structural gaps in the core SaaS platform based on edge-case failures in the field and designing the functional requirements for subsequent feature releases.
- **Synthesized disparate legacy data silos** into unified, cloud-native architectures, prioritizing long-term data durability and system recoverability over out-of-the-box defaults.
- **Acted as the ultimate technical escalation point** for complex system-of-systems failures, diagnosing root causes at the intersection of networking, identity, and application-layer logic.

Help Desk Team Lead — SpecPro Technical Services (STS)

Oct 2011 – Feb 2015 | Fort Belvoir, VA

Led enterprise support and project execution teams supporting mission-critical government environments.

- Managed and coordinated teams of 4–10 technicians across daily operations and ad-hoc project work
- Led large-scale system migration projects, including OS and hardware refreshes across thousands of endpoints
- Reduced ticket backlog dramatically through workflow redesign and systemic root-cause remediation
- Took ownership of complex technical escalations requiring cross-team coordination and rapid diagnosis

Senior Technical Lead — SAIC

Sep 2007 – Oct 2011 | Walter Reed Army Medical Center, VA

Senior technical lead for high-visibility healthcare and government IT systems.

- Directed teams supporting large-scale production environments with strict uptime and compliance requirements
- Owned technical execution for complex projects involving infrastructure, systems integration, and operational continuity
- Served as escalation point for novel or undefined technical failures requiring creative problem solving
- Balanced operational stability with continuous system improvement

Early Career Roles — Systems & Support

1997 – 2007 | Various Locations

Progressed through systems administration, hardware deployment, and enterprise support roles, building a strong foundation in operating-system internals, networking, and large-scale IT environments.

Technical Orientation

- Designing systems that integrate cloud services, identity, data, and automation
- Evaluating architectural trade-offs under real-world constraints
- Leveraging AI/LLMs as accelerants for development, analysis, and automation
- Working fluently across platforms without anchoring identity to any single tool or framework

Core Technical Competencies

Domain	Architectural Focus	Tooling & Environments
System Design	Distributed Systems, Scalable SaaS, High-Availability Architecture, Hybrid-Cloud Integration	Microsoft 365, Azure (Logic Apps, Functions), AWS, RESTful APIs

Identity & Security	Zero Trust Architecture, RBAC/ABAC, (FedRAMP/DoD/CMMC)	Entra ID (Azure AD), OIDC, SAML, Conditional Access, Data Loss Prevention (DLP)
AI & Automation	Agentic Workflows, RAG (Retrieval-Augmented Generation), Human-in-the-Loop Orchestration	LLMs (GPT-4, Claude, Local models), LangChain, Vector Databases, Python, Automation Design
Data Governance	Data Lifecycle Management, Resilience/DR, Compliance-as-Code, Information Architecture	SQL/NoSQL, SharePoint Framework (SPFx), Information Protection (MIP)
Engineering Culture	Technical Documentation, Root-Cause Analysis (RCA), Technical Mentorship, Strategic Roadmap Alignment	Markdown-as-Documentation, Obsidian/Tana (Knowledge Graphs), GitHub

Writing & Thought Leadership

Author and technical writer focused on system design, AI-human interaction, and the cognitive implications of modern software.

- Author of *Recursionship: A Field Guide to Living With AI* — an applied, systems-oriented exploration of human-AI collaboration, memory, and interface design
- Regularly publish long-form technical writing on AI architecture, emergent systems, and the human factors that shape effective tooling

- Use writing as a design discipline to clarify system intent, surface hidden assumptions, and communicate complex technical ideas to mixed technical and non-technical audiences

Working Style

- Comfortable operating where requirements are incomplete or evolving
- Prefers clear ownership and accountability over process-heavy environments
- Uses documentation as a thinking tool, not a compliance artifact
- Optimizes for long-term system coherence and maintainability

Availability Open to senior systems, architecture, and exploratory technical roles emphasizing design, ownership, and problem solving. Remote-first preferred.