



Aaron M. Harris

Senior Product/Software Engineer | Solutions Architect
AI-fluent Full Stack Developer

CONTACT



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SUMMARY



Senior product/software engineer, solutions architect and designer, with 15+ years building complex simulation, UI/UX, and XR systems from concept to market. AI-fluent full stack developer with deep engineering judgment and design fluency across the full stack. Excels at small team work that seems impossible for the scale.

SKILLS



-  **Coding:** Python, TS, JS, HTML/CSS, MongoDB, C#, React, SQL, REST, Unity, BabylonJS, WebGL
-  **AI-Augments:** Claude (primary), Codex, Gemini, GPT, Midjourney, Higgsfield, LTX, ComfyUI, Qwen
-  **Design:** Adobe CS, Canva, 3DSMax/Blender, Filmora, Premiere
-  **XR/VR/Simulation:** Valve Index, Meta Quest, Planetarium systems, astronomical simulation, voxels
-  **Process:** Agile/Kanban, SCRUM-adept, technical architecture, code review, technical lead, team mentorship, founding-team experience, B2B sales, contracts, grant writing
-  **Marketing:** Print/signage, web design
-  **Languages:** English (fluent), French (B1, in progress)

PROFESSIONAL EXPERIENCE

Founding Engineering Team, Technical Lead, Forerunner Platform

Space Interactions Inc. – Sterling Heights, Michigan
February 2024-Present

- ◆ **Technical lead** on Forerunner 3: BabylonJS/TypeScript web-based 3D visualization platform integrating live satellite data, Google Earth tiling and live FAA traffic data via REST. Fast-tracked AI-augmented rebuild of legacy WebGL/JS and TS platform.
- ◆ **Technical lead** on Forerunner 2: TypeScript, Rust/MongoDB/REST backend architecture for space-domain awareness app, indexing 500,000+ historical TLE (Two-Line Element) records dating to the 1980s with time-traversal query support.
- ◆ **Led UI/UX redesign and 3D mesh optimization** for orbital debris tracking software presented at the 2024 Space Symposium
- ◆ **Part-time SCRUM master** and strategic advisor on team assembly, startup operations, and technical roadmap.

Founder & Principal Consultant

HarrisXR LLC – Traverse City, Michigan
February 2023-Present

- ◆ Independent technology consulting practice serving regional businesses, nonprofits, seniors, and veterans. Engagements include **software automation, UI/UX design, systems integration**, and IT hardware setup/repair.
- ◆ Ongoing automation maintenance and tech, website, and app consulting work for regional service businesses, building on prior CTO-level system architecture engagements.
- ◆ Created 10+ AI-augmented **Python, web, and automation applications in 2025–2026 for internal and team use**, spanning reverse-engineering tooling (call-stack visualizer), real-time projection math (360° → 180° fisheye video), AI workflow utilities, file duplication, system monitoring, French voice practice, and developer tooling.
- ◆ Developed donation-based tech education and workshops for seniors, veterans, and community organizations, bridging modern technology to underserved populations.

Earth & Space Lab Director, Technology & Strategic Advisor

COGNiTION Science and Discovery Center (nonprofit, 501(c)(3)) – Beulah, Michigan
February 2023-Present

- ◆ Architected and operate one of the most advanced mobile planetarium rigs in the U.S.: a **\$50K real-time astronomical simulation system**

custom-integrated from international vendors (Israeli dome, Belgian fisheye lens, SEILER/ZEISS custom-modified projector), international travel to RSA Cosmos HQ in France for research. Novel external-electronics and 5G wireless presenter interface. **100+ live shows, 10,000+ attendees to date.**

- ◆ Researched and toured world-leading planetariums in France (RSA Cosmos HQ, partner facilities) to inform component selection and system design. First customer ever for SEILER's fully custom-integrated mobile platform.
- ◆ Led design and build of a **4-station commercial VR program** using Valve Index hardware on custom-built RTX-class PCs, integrated into general admission. Curated educational and family-friendly experiences (Aerofly VR flight sim, BeamNG VR driving sim, Job Simulator VR, Minecraft VR). **Trained staff to operate independently.**
- ◆ Strategic contributions to **Impact 100 grant application resulting in \$110,000 award**, funding the planetarium and VR program expansion (competitive grant process favoring infrastructure over enabling tech).
- ◆ **Advisor to the Executive Director on technology strategy**, program development, hiring, pricing, and organizational growth. Contributed to Cognition's growth from a \$40K starting annual budget to **\$500K+/year in current gross revenue and donations.** Former Board of Directors member.

Chief Technology Officer, Design Lead

Phillips Lifestyles – Traverse City, Michigan
October 2015-February 2024

- ◆ Architected a **multi-system logistics platform from the ground up**: C# desktop client, MongoDB primary data store with redundant Google Calendar sync, custom Particle.io IoT GPS hardware integration across an 18-vehicle service fleet, and AutoHotkey-based RPA bridging an aged legacy POS (Tylernet Convergence).
- ◆ System drove a **\$1.5M revenue increase and ~\$300K/year in saved indirect labor** over the implementation period.
- ◆ Designed dual-window UI philosophy and custom maintenance-plan CRM enabling 6 service technicians (2-4 jobs/day) and 3-4 maintenance technicians (8-13 jobs/day) to **operate from a unified scheduling system with offline-capable local data** store.
- ◆ Led development with a small team of engineers, **owning architecture, code review, technical roadmap, and integration decisions.**
- ◆ Strategic lead across company technology: **network, software, hardware, and 24/7 automation infrastructure.** Design Lead for all digital graphics, marketing materials, vehicle wraps, website, and signage.

Co-Founder, Chief Strategy Officer

ZanMgt. – Lowell, Michigan
January 2011-January 2017

- ◆ 3D Voxel-based space-sim game **Blockade Runner** with unique spaceship construction system and realistic physics. 5,000+ paying early-access customers across international markets, bi-weekly release cadence, active community engagement. (2011-2016)
- ◆ Proprietary 3D voxel-based game, **Liquid Cubed**, with real-time fluid simulation system demonstrating novel approaches to fluid dynamics in voxel environments at performance levels still uncommon in 2026. (2011)

▶ CONTINUING EDUCATION

- ◆ **Research travel** including France (RSA Cosmos, world-leading software) for industry exposure. (2018-present)
- ◆ **Self-directed learning**: collegiate-level IT, technology, math, history, and science. (2001-present)
- ◆ Lowell High School and self-directed homeschool curriculum, Lowell, Michigan. (2001-2004)

▶ COMMUNITY LEADERSHIP

- ◆ **Board of Directors**, COGNiTION Science & Discovery Center. (2017-2023)
- ◆ **Assistant Organizer**, French Language & Culture Group, Traverse City. (2018-present)
- ◆ **Argentine Tango Instructor**: classes and tutelage for Argentine Tango, co-creative. (2021-present)