

ELIUTH CHAVERO JASSO

Forward Deployed AI Engineer & Engineering Systems Architect

Applied AI | Product Engineering | Agentic & Evidence-Grounded Systems | AEC Technology

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PROFILE

Engineer who builds production AI and software systems for complex engineering workflows, with technical ownership from customer discovery through architecture, implementation, validation, and deployment. Currently Technical PM & Revit Developer at Shokworks, leading EMA AI — an engineering intelligence and deliverable-readiness platform that pairs an agentic investigation layer with deterministic, evidence-backed verification inside Revit. Six years of prior field experience in electrical BIM/VDC on U.S. mission-critical projects, including 30+ data centers and 25+ healthcare facilities, provide the domain fluency behind that product work: the constraints, documents, models, and stakeholders are ones I have worked inside, not ones I read about.

TECHNICAL SKILLS

Applied AI: Agentic systems, evidence grounding and provenance, retrieval, vector search (Qdrant), structured outputs, evaluation and UAT design, human-in-the-loop review, AI governance with deterministic decision authority, and local/on-premise inference for confidentiality-constrained environments.

Software Engineering: C#, .NET, Revit API, WPF/MVVM, Python, FastAPI, PostgreSQL, Qdrant, REST APIs, React, TypeScript, Docker, Git/GitHub, PowerShell, automated testing, CI/CD, release and installer validation, and multi-version host compatibility.

Product & Forward-Deployed: Customer discovery, technical scoping, product definition, system architecture, 0–1 delivery, requirement structuring, acceptance criteria and release gates, enterprise workflow integration, UAT, deployment, and technical stakeholder communication in English and Spanish.

Engineering Domain: BIM/VDC, Revit, electrical power distribution and lighting, MEP coordination, data centers and mission-critical infrastructure, engineering documentation, drawings and schedules, owner requirements, constructability, and QA/QC.

SELECTED WORK

EMA AI — Engineering Intelligence & Deliverable Readiness Platform

Shokworks, Inc. | Mar 2026–Present

Revit Add-in | Agentic Investigation | Deterministic Verification | Evidence & Provenance

- Lead technical delivery end to end: product scope, user stories, technical specifications, acceptance criteria, UAT cases, release gates, traceable evidence, and implementation priorities across AEC, product, and software teams.
- Architected a governance model that separates concerns deliberately: deterministic engines own official automated results, while AI supports search, explanation, summarization, and remediation guidance without approving compliance or altering official evidence.
- Structured 227 owner requirements across Divisions 21, 22, 23, 26, 27, and 28, and designed a controlled pass/fail UAT campaign carrying evidence, confidence, coverage, and decision traceability.
- Built discipline-scoped Revit extraction (All, Electrical, Mechanical, Plumbing, Lighting) and model checks including elements without levels, unconnected fixtures, fixtures missing circuits, and panels without upstream sources.
- Coordinated add-in, backend, data, and validation work across C#, Python, Revit API, FastAPI, PostgreSQL, Qdrant, Docker, and Git/GitHub; recorded 957/957 C# and 206/206 Python tests passing outside the Revit runtime.

BIM Automation Tooling

Across BIM/VDC roles, 2020–2026

- Developed Dynamo and Python workflows for parameter enforcement, automated sheet generation, naming-standard validation, model-health auditing, QA/QC checks, and structured Excel/CSV extraction — reducing manual review effort and improving traceability across deliverables.
- Built NVIDIA Omniverse workflows for collaborative model review, real-time visualization, clash evaluation, and stakeholder communication.

INDEPENDENT RESEARCH

Exploratory work in operator theory, structure-preserving algebra, and computational cosmology, published as reproducible code with explicit epistemic status for every claim (definition, proved under assumptions, numerically verified, conjecture, open).

Deliberately conservative: a numerical residual is treated as an observation, not a proof.

- **SEION Poly-Roots** — a spectral-operatorial framework representing polynomial roots via a companion operator, an optional isospectral transport gauge, and numerical resolvent projectors on contours, framed as a local spectral projector bundle over coefficient space. Emits JSON certification metrics. github.com/voidzeit/seion-poly-roots
- **SEION Math Core** — the mathematical nucleus of the Kernel-Integrated Laws framework: typed finite-dimensional n-ary laws, associator and symmetry defects, structure-preserving projectors, and finite cohomological checks, with a claim registry and reproducible run artifacts. github.com/voidzeit/seion-math-core
- **Ultra Late Transition** — analysis code and data products supporting a preprint constraining an ultra late transition in dark energy from low-redshift data. github.com/voidzeit/ultra-late-transition

PROFESSIONAL EXPERIENCE

Technical PM & Revit Developer

Mar 2026–Present

Shokworks, Inc. | Remote
See EMA AI under Selected Work.

Virtual Design Engineer

Mar 2025–Mar 2026

Crusoe Energy Systems | Remote

- Ran BIM/VDC delivery operations for U.S. healthcare, commercial, and mission-critical projects: staffing, resource planning, QA/QC, production tracking, proposals, and direct client communication.
- Led distributed LATAM–U.S. teams and supported lump-sum and managed-service proposals above USD 50,000, including multi-resource staffing and schedule-recovery models.
- Reviewed data-center and critical-infrastructure delivery for constructability, maintainability, equipment access, scalability, and multidisciplinary system integration.

Electrical BIM Engineer

Mar 2024–Mar 2025

Salas O’Brien & Ehvert Mission Critical | Remote

- Designed and coordinated hyperscale and AI data-center electrical systems: distribution, UPS, standby generation, switchgear, lighting, grounding, security, and life safety.
- Prepared and reviewed single-line diagrams, load and voltage-drop calculations, panel schedules, equipment layouts, and specifications, and coordinated across architecture, structure, mechanical, civil, fire protection, controls, construction, and commissioning stakeholders.

Progressive Electrical BIM/VDC Roles

Feb 2020–Mar 2024

Bergelectric, B&I Contractors, and Comfort Systems USA — via Excelsus | Remote

- Progressed from BIM Drafter and Specialist to BIM Coordinator and Lead across hyperscale data centers, hospitals, industrial facilities, and complex commercial projects.
- Managed LATAM–U.S. production teams, BIM execution plans, project standards, model governance, QA/QC, document control, coordination logs, submittals, and schedule alignment.

BIM Instructor — Part Time

Nov 2024–Feb 2025

MEPBIMTEK | Remote

Delivered applied Revit and EVOLVE MEP training covering electrical and mechanical coordination, prefabrication, spooling, BIM standards, and mixed-reality workflows.

PV Electrical Engineer

Feb 2019–Feb 2020

BE Excellent Energy | Querétaro, Mexico

Designed commercial photovoltaic systems and electrical installations, including layouts, calculations, voltage-drop analysis, diagrams, and technical and financial proposals; built Excel macro-based estimating tools.

Electrical Systems Lead

Jun 2018–Feb 2019

Bulls Racing Team — Formula SAE | Mexico

Designed a high-voltage accumulator and battery-management system for an electric Formula SAE vehicle; supported electrical audits, component integration, procurement, APQP, and FMEA.

EDUCATION

B.Sc. in Electromechanical Engineering

2016–2021

Tecnológico Nacional de México | Mexico

B.Sc. Artificial Intelligence Engineering — Paused

2020–2023

Instituto Politécnico Nacional, UPIIT | Mexico

Technical Diploma in Programming

2013–2016

General Directorate of Industrial Technological Education | Mexico

CERTIFICATIONS & LANGUAGES

Automation & Development: Python and Revit API (2025). | **BIM & Digital Construction:** BIM Project Management Professional (2024); Metaverse BIM Integration Specialist (2025); Dynamo BIM: From Zero to Hero (2025); Revit Families: Beginner to Pro (2024).

Languages: Spanish — Native | English — Professional working proficiency | German — Basic conversational proficiency

Product and project descriptions summarize the candidate’s direct participation and responsibilities. Scope, deliverables, and technical details may be adjusted where required by client confidentiality, contractual obligations, or project-specific disclosure restrictions.