

MATTHEW CURTIS

Full-Stack Software Engineer - APIs, Data Integration & Portal Tooling

Carbondale, IL | 270.556.4327 | matt@alluvialequipment.com

linkedin.com/in/mdcurt | github.com/mdcurt

SUMMARY

Software engineer building operational software end to end: TypeScript interfaces, APIs, data models, integrations, and workflow tools. Currently lead engineer on a therapist portal handling protected health information for an online mental health practice; prior projects span manufacturing, compliance, and supply-chain workflows, including an Angular/Electron audit app and CSV-driven vendor scoring dashboards. Author of an open-source MT-SICS protocol emulator on PyPI (Python asyncio; REST, TCP, and serial transports; ~300-test suite).

SKILLS

Languages: Python · TypeScript · JavaScript · SQL

Frontend: Angular · Electron

Backend & APIs: REST / HTTP · Node.js · asyncio · JSON Schema · API contract design · data validation

Data: PostgreSQL · Firebase / Firestore · relational data modeling · ETL / data pipelines · Airtable

Testing & CI/CD: pytest · GitHub Actions · Trusted Publishing (OIDC) · Git

Systems: TCP/IP · Serial / RS-232 · protocol design

EXPERIENCE

Integrity Mental Health and Coaching – Fractional Software Engineer

Remote | Jul 2026- Present

- Lead full-stack development of a therapist portal web app (TypeScript, Firebase/Firestore) for an online mental health practice, maintaining and modernizing a legacy codebase that handles protected health information (PHI).
- Reduced Firestore reads from O(n) round trips to a single batched query, cutting load time from seconds to milliseconds.
- Manage a second developer and introduced a branch-based workflow with mutual pull-request review before every merge and deploy.
- Own the practice's web infrastructure, including the WordPress site, DNS, and Google Workspace domain configuration.

Independent Software Contractor - Full-Stack Workflow Engineering

Remote | 2025 - Present

- Designed a multi-tenant business-management platform in Airtable on a 26-table relational schema with role-based access control, multi-location support, membership and ledger/AR management, and structured treatment records.
- Built JavaScript automations generating dependent tasks, calendar timelines, and WIP / lead-time dashboards, eliminating 100+ hours of manual data entry per month and associated errors.
- Delivered an order-driven production workflow system for a clothing manufacturer, replacing manual spreadsheet tracking across operations.

Alan Wire - Full-Stack Engineer (Intern) Contract

Sikeston, MO | Sep 2025 - Oct 2025

- Built an internal vendor-scoring tool that ingested and normalized CSV performance data into ranked purchasing insights.
- Delivered comparison dashboards with drill-downs by lead time, delivery performance, and cost variance, distilling millions of records into views usable by technical and non-technical stakeholders.

Aeriz - Software Engineer Fixed Scope Contract

Anna, IL | Aug 2025 - Sep 2025

- Developed an offline-first compliance and audit desktop application (Angular + Electron) for regulated facility inspections.
- Implemented transplant validation covering 3,060 regulated plant movements per week, supporting audit readiness and reducing exposure to fines of up to \$50,000 per violation.
- Packaged and deployed the application as a Windows executable for on-site teams.

OPEN SOURCE

mt-sics-emulator - Author & Maintainer

pypi.org/project/mt-sics-emulator | 2026

- Authored and published the first known open-source server-side implementation of the MT-SICS industrial scale protocol: a Python asyncio engine exposing an HTTP / REST control API alongside TCP and RS-232 transports for hardware-free integration testing, with 8 built-in scale profiles across Mettler Toledo, Ohaus, and Sartorius.
- Built a ~300-test pytest suite with GitHub Actions CI and automated PyPI releases via Trusted Publishing (OIDC).

EDUCATION

Southern Illinois University, Carbondale - B.S. Computer Science

Expected May 2028

Codefifi Code Labs - Full-Stack Web Development Program

Cape Girardeau, MO | Jan 2025 - Oct 2025

10-month, 30+ hrs/week in-person program building production-style web applications.