

Matthew Brown

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<https://github.com/matthew-brown-mlsci/Resume>

*Senior Data Engineer pursuing opportunities
around mission critical healthcare technology solutions.*

Qualifications

- Diverse experience supporting a variety of clinical information systems.
- Extensive background working in clinical laboratory operations.
- Passionate about achieving a challenging position that allows for meaningful contributions.
- Enthusiastic and efficient when learning new technologies.
- Cognizant and mindful of product lifecycle and support constraints when evaluating or implementing projects, solutions and work-arounds.
- Resourceful and creative when solving difficult technical problems.
- Responsible when ensuring project timelines, ensures goals and needs are communicated to appropriate participants.
- Confident responding to complex incidents in a timely manner when placed in an on-call rotation.
- Comfortable operating remote, with a dedicated home office space, fully remote going on 7 years.

Professional Experience

- Coded custom solutions for unique problems, including creating multi-user, database driven applications, APIs, and web front-ends.
- Extensive database/SQL/ETL experience against a long list of clinical systems.
- Adopted and standardized new technologies to solve difficult problems.
- Worked on a development team, in an Agile framework \w source control tools to produce and deploy production quality code for a microservice, cloud based architecture.
- Several years managing various clinical application servers running AIX, HP-UX, Linux, Windows Server 2003->2022. Experience installing, configuring and supporting Citrix applications.
- Team project lead on several complex projects involving clinical application upgrades/installs/sunsets from McKesson, Sunquest, Medware, Data innovations, Nuance, Allscripts, etc.
- Skilled at evaluating & automating IT processes using appropriate technology
- Regularly interfaced with vendors, network engineers, system engineers, application analysts, operations management and end-users to facilitate timely resolutions to issues/project work.
- Facilitated friendly interchanges between (at-times) hostile resources to expedite project/incident related work.
- Worked off-hours/on-demand as required to maintain clinical application integrity.
- Experience in an enterprise clinical environment on a national technical team providing 24/7, 3rd tier support.

Employment History

Harmony Healthcare IT – South Bend, IN (Harmony purchased Trinisys in Fall of 2024)

Senior Healthcare Data Engineer

(Workstream 6 Team)

- 2025 to Present

- Supported legacy Trinisys products and projects
- Wrote custom python code to facilitate robotic process automation to extract data from Meditech Expanse, Client-Server EHR module, coordinated VM farms for data extraction.
- Provided cross-team training on Trinisys/Convergence Restful API, actively exploring technical benefits of Harmony/Trinisys merger.
- Worked several archival projects, source systems including various Meditech instances, CPSI, Haemonetics, etc.

Trinisys – Brentwood, TN

Senior Healthcare Data Engineer

(Clearview team)

- 2022 to 2024

Healthcare Data Engineer

(Clearview team)

- 2021 to 2022

- Developed code on Trinisys's custom in-house platform *Convergence*
 - Wrote complex SQL queries against various data extraction targets.
 - Managed document extraction/conversion for various scanned/static/dynamic scenarios
 - Wrote code to create HCA1500/UB04 forms from 837i/p data files custom per client requirements.
 - Loaded discrete/document data to Trinisys's customer-facing clinical/EDM/patient financial application "Clearview".
- Extensive discovery / technical planning / SQL schema dissecting across dozens of clinical system databases
- Designed and built new processes as-needed to archive clinical systems that had not been archived previously by Trinisys.
 - Introduced Trinisys to RPA (robotic process automation) techniques using Python/Jython tools \w fuzzy image matching and OCR (OpenCV + Tesseract)
 - Designed standardized patterns and wrote reusable code libraries to manage RPA extractions via Restful API calls and AWS Aurora db back-end.
- Exposed to tons of clinical systems and the challenges associated with securely and reliably extracting legal health records and patient financials
 - Including: Meditech Magic/Expanse/Client Server, Cerner Pathnet (for Blood Bank), CPSI, Affinity, AthenaOne, Vision, Bamboo, FetalLink, Haemonetics, etc
- Worked with application development team to leverage my clinical laboratory blood bank experience to create a blood bank module in Clearview, a custom archival child application to facilitate historical queries of clinically relevant data across multiple source systems by customer's blood bank staff.

Ascension Technologies (previously known as Wheaton Franciscan Healthcare) – Glendale WI

Solutions Development Senior Analyst

(Tech-Apps Lab Team)

(Business Operations Enterprise Products Team)

(Clinical Administration Enterprise Products Team)

- 12/17/2016 to 2021

Senior Technical Application Analyst

(Tech-Apps Lab Team)

- 10/1/2016 to 12/17/2016

- Developed unique solutions for healthcare environment challenges, spanning the entire stack (Python/Flask API powered windows services that interact with relational db backends + web (webpack/React) front-ends)
- Contributor to Ascension Technologies automation sub-team, utilizing Selenium/Java/Python to identify/automate enterprise processes.
- Continued supporting a variety of legacy clinical systems including: McKesson (Allscripts) Lab, Horizon PHS, Horizon HSM, Allscripts Sunrise, 3M CRS, Sunquest Lab / Antrim / CoPath / PowerPath, Nuance Clintegrity, Medware HCLL, UL Systoc, Abbott Precision Web, McKesson Practice Plus, etc. Clinical application hosted on a mix of Unix(AIX, HP-UX, RedHat Linux, etc)/Windows Server hosts.
- Helped sunset several legacy applications (Sunquest Lab, Sunquest CoPath, Nuance Clintegrity, Horizon PHS, Horizon MSM, McKesson PPM).

Technical Application Analyst (Tech-Apps Lab Team) - 7/5/2014 to 10/1/2016

- Worked with vendors, system engineers, network engineers, application analysts and users to setup and maintain clinical software environments.
- Created custom scripting/programs to facilitate solving the unique needs and problems presented by an information systems environment filled with disparate clinical applications that must interact effectively.
- Supported a variety of clinical systems including: McKesson Lab, Horizon PHS, Allscripts Sunrise, 3M CRS, Sunquest Lab / Antrim / CoPath / PowerPath, Nuance Clintegrity, Mediware HCLL, UL Systoc, Abbott Precision Web, McKesson Plus, etc.
- Regularly performed off-hours maintenance rotations & on-call schedules

Application Analyst (Lab Application Team) - 5/5/2013 to 7/5/2014

- Supported McKesson Lab (aka Horizon Lab aka Allscripts Lab), Sunquest PowerPath(Tamtron), Mediware HCLL, Abbott Precision Web, Data Innovation Instrument Manager, Sunquest Antrim, etc.
- Participated in regular build cycle (new tests, test changes, method changes, etc)
- Participated in several concurrent projects, worked with operational and IS staff to complete objectives within established timelines.
- Utilized available documentation and resources to establish creative solutions to technical problems.

LenderClose

Software Developer (consultant) (100% Remote) - 3/2019 to 10/2019

- Worked on a team of software developers, Agile framework, to enhance front end and back end functionality.
- Took the lead on DevOps role as an architect for AWS deployment of their new microservice-based application (AWS ECS / EC2 / RDS / Route53 / etc), implemented as infrastructure as code \w Terraform + Ansible.
- Added new front-end functionality to various technical debt items using html/css/javascript/Riot/React
- Added new API endpoints to existing Python-based back-end (Flask + Postgres)

Specialty Screening LLC

Lab supervisor (Wauwatosa, WI) - 10/2016 to 8/2018
Clinical Lab Scientist (Wauwatosa, WI) - 2/2016 to 10/2016

- Provided all aspects of on-site laboratory bench work, IT support and CLIA compliance.
- Supervised last CLIA on-site review (0 deficiencies cited).
- Wrote custom software to facilitate patient result management and reporting (AutoIT + JetDB).
- Ensured all technical aspects of the business were maintained using a minimum of budgetary resources.

Aurora Health Care

Medical Technologist (West Allis Mem. Hosp.) - 5/29/2007 to 5/3/2015
 (Sinai Med Center) - 7/13/2012 to 5/3/2015

- Performed clinical lab testing in accordance with established procedure, regularly rotating through several laboratory departments including:
 - Hematology (automated, differentials, special, etc)
 - Coagulation
 - Chemistry (special, immune, automated, etc)
 - Bone marrow (spec processing, staining, 500 cell differentials, etc)
 - Blood bank
 - Batch Elisa Assay
- Trained 8 different staff members on various benches, both on 2nd shift ACL West Allis, 1st shift ACL West Allis, and 1st shift ACL Sinai.
- Participated in off-the-bench initiatives including biannual LIS calculation validations.
- Volunteered to fill in at Aurora Sinai hospital lab during critical staffing shortage (from June 2012 to May 2015).
- Participated in Sunquest Lab technical training team. Wrote a user training guide for use with new employees and as a reference for current employees for the Sunquest Lab LIS. Utilized at several Aurora Sites.
- Coded a solution to transfer Quantiferon results via USB flash drive from the DSX analyzer to Commercial Lab LIS system. Validated system, nurtured process through test code build changes, created training materials, updated as necessary.

Wheaton Franciscan Healthcare

Clinical Laboratory Scientist

(St. Francis Hospital)

- 3/8/2004 to 5/5/2013

- Full time 2nd shift 3/8/2004 to 5/28/2007, 3rd shift Pool to 5/5/2013
- Performed clinical lab testing in accordance with established procedure, regularly rotating through several laboratory departments including:
 - Hematology (automated, differentials, special, etc)
 - Coagulation
 - Chemistry (special, immune, automated, etc)
 - Blood bank
 - Microbiology set-ups
- Key operator Beckman-Coulter hematology analyzers

Education

Northern Michigan University

(Marquette, MI – 12/2003)

Associate degree (*Clinical Lab Tech.*)

Michigan State University

(East Lansing, MI 5/2001)

Bachelors of Science (*Human Biology*)

ASCP certified as a **Clinical Laboratory Scientist** (August 2006) (\w CM certification, expires: 8/2021)

Technology experience

To help prospective employers better understand my technical experience, I've compiled lists of the various technologies I have direct experience utilizing. Please see the Github links below for more information!

[Operating Systems](#)

[Development Tools](#)

[Databases](#)

[Network technologies](#)

[Clinical Applications](#)

[Enterprise/Misc applications](#)

Technical problem solving examples / Soft skills

[List of technical examples](#)

[Soft skills](#)

References

[List of references](#)