

Casey St. Luce, MD

AI Engineer, Clinical Informatics

San Francisco, CA, United States | [LinkedIn](#)

Physician-trained AI engineer building EHR data pipelines and clinical AI workflows, bridging healthcare domain expertise with software development.

EXPERIENCE

Medical Innovation — Specialist Atropos Health Authored 150+ observational studies on real-world EHR data using TQL, translating clinical hypotheses into queries across ICD-9, ICD-10, CPT, SNOMED, and LOINC terminologies. Reviewed peer analysts' queries for clinical accuracy and data integrity, contributed to an internal clinical definitions library. Worked with health-system investigators and life-sciences companies to refine research questions and communicate evidence limitations. Diagnosed platform and data-pipeline issues by tracing query outputs to source records.	Aug 2024 — May 2025 <i>San Francisco, CA</i>
Solo Founder Whisper Health Designed, built, and launched an iOS application for anonymous peer-to-peer communication among healthcare professionals. Built a SwiftUI frontend and FastAPI backend with client-side encryption to keep user email addresses off the backend. Gathered user feedback, conducted outreach, and secured grant funding through pitches to venture-support programs.	Jun 2023 — Mar 2024 <i>Philadelphia, PA</i>
Digital Health Scholar Center for Health Care Transformation and Innovation @ Penn Medicine Supported development and launch of a HIPAA-compliant mobile data-collection application for clinical research, including GPS and heart-rate collection for an Urban Health Lab study of environmental stress. Generated synthetic data for an NLP chatbot pilot focused on radiation-oncology aftercare. Supported patient consent and data collection; collaborated on planning a noise-pollution health study with Philadelphia city officials.	Apr 2019 — Aug 2019 <i>Greater Philadelphia Area</i>
Medical Student Representative Lumos MD Coordinated outreach for digital medical education tools among Penn medical students, achieving a reported 20% increase in user participation. Collected user feedback to inform product improvements, proposed a flashcard-generation feature, and supported educational-module development.	Feb 2019 — Feb 2020 <i>Remote</i>
Vice President of Entrepreneurship Penn HealthX	Jan 2019 — Jan 2020 <i>Greater Philadelphia Area</i>

EDUCATION

University of Pennsylvania School of Medicine <i>Doctor of Medicine - MD</i> H-MET Certificate in Healthcare Management, Entrepreneurship and Technology. Completed clinical training across internal medicine, surgery, pediatrics, psychiatry, and obstetrics/gynecology.	Sep 2020 — Jun 2024
Temple University <i>Bachelor's Degree in Biochemistry</i> Distinction in Major	Sep 2014 — Jun 2018

PROJECTS

AI-assisted query language development tool , VS Code Extension for TQL Built an internal VS Code extension using Claude Code to streamline authoring of observational-study queries in Atropos's proprietary query language. The tool achieved adoption across the analyst team and received recognition as the company's most impactful innovation.
Language-model training data preparation from clinical records , EHR-to-Narrative Pipeline Designed and built an end-to-end Python pipeline converting structured EHR records into patient narratives for experimental language-model training with Meta. Implemented record ingestion, data transformation, and LLM-based narrative generation, translating coded clinical events into coherent patient timelines organized around clinical index events.
Natural-language interface for research question definition , Conversational Query Refinement Prototype Designed and iterated prompts for an early internal multi-turn AI prototype helping users express research questions in natural language and refine study requirements. Owned prompt iteration for question clarification and TQL generation within a proposed self-service workflow for case series, cohort studies, and attrition diagrams.

PPE distribution initiative for underserved neighborhoods, SHARP — Safe Haircuts as We Reopen Philadelphia
Directed logistics for PPE distribution to more than 30 hair salons in underserved Philadelphia neighborhoods during the COVID-19 reopening. Coordinated with a team of 15+ members and organized weekly planning meetings. The project received institutional recognition and funding.

Anonymous peer communication platform for healthcare professionals, Whisper Health

Designed and launched an iOS application enabling anonymous peer-to-peer communication among healthcare professionals. Built a SwiftUI frontend and FastAPI backend with client-side encryption. Gathered user feedback and conducted outreach to inform product development.

HIPAA-compliant research platform with physiological monitoring, Mobile Clinical Data-Collection Application
Supported development and launch of a HIPAA-compliant mobile application for clinical research data collection. Featured GPS and heart-rate monitoring for an Urban Health Lab study examining environmental conditions and physiological stress in Philadelphia.

CERTIFICATIONS

EMT-B, National Registry of Emergency Medical Technicians

SKILLS

Artificial Intelligence (AI) · Real World Evidence (RWE) · Python (Programming Language) · Research · Teaching · SQL · TQL · JavaScript · R · SwiftUI · FastAPI · Jupyter notebooks · GitHub · VS Code · Claude Code · EHR data transformation · LLM-based narrative generation · Prompt design and iteration · Conversational AI · Text-to-TQL generation · Real-world EHR analysis · Observational-study queries · Clinical phenotype definitions · OMOP CDM · ICD-9/10 · CPT · SNOMED · LOINC · RxNorm · FHIR · HL7 · Pandas · NumPy · FlutterFlow · Figma · Excel · PowerPoint · Epic · CRISPR/Cas9 · PCR · Gel electrophoresis · Immunohistochemistry · Zebrafish husbandry · Clinical research · Healthcare AI · Healthcare informatics · Product design · App deployment