David M. Everly Jr, MSN, CRNP, AGACNP-BC

Clinical AI Systems Engineer

https://www.dmeverly.com

PROFESSIONAL SUMMARY

Clinical AI Systems Engineer with over a decade of experience as a Nurse Practitioner in Critical Care and Emergency Medicine. Designs and evaluates intelligent systems with explicit attention to failure modes, trust boundaries, and downstream risk. Bridges clinical reality and software engineering, emphasizing reliability, interpretability, and controlled system behavior in high-stakes environments such as healthcare and security-adjacent domains.

SELECTED ENGINEERING PROJECTS

SynapSys — Modular LLM Orchestration Framework

Designed a failure-aware orchestration framework for large language models, emphasizing explicit boundaries around context, capability, validation, and repair.

Portfolio Chatbot — Reference Implementation for SynapSys

Built a retrieval-augmented conversational system with pre- and post-LLM guard pipelines, short-circuit logic, and deterministic fallback behavior.

CNN Cardiac Rhythm Classification

Developed a convolutional neural network for ECG rhythm classification

QUIC Protocol Prototype

Designed a proof-of-concept application-layer protocol over QUIC

Schedule Templater & Scheduler

Implemented a two-stage scheduling system separating constraint-driven planning from workflow execution.

CLINICAL & OPERATIONAL EXPERIENCE

WellSpan Pulmonology & Critical Care Medicine — Nurse Practitioner

May 2019 – Present

Routinely manage high-risk decisions, system failures, and rapidly evolving conditions. Perform advanced procedures and serve as a preceptor for clinicians and trainees.

Hershey Medical Center Emergency Medicine — Nurse Practitioner

August 2017 – September 2019

Registered Nursing Roles (2013–2017)

Progressive care, emergency medicine, cardiopulmonary step-down, and academic clinical instruction.

EDUCATION

Master of Science in Computer Science

Drexel University   2026

Graduate Certificate in Computational Artificial Intelligence

Drexel University   2025

Master of Science in Nursing

The Pennsylvania State University   2017

CREDENTIALS & CERTIFICATIONS

ISC2 Cybersecurity Certified (2025) · Epic Physician Builder (2024) · AGACNP-BC (2017) · Registered Nurse (2013)

RECOGNITION

Advanced Practice Provider of the Year — HMC Emergency Department (2019) · Graduate Fellowship — Penn State University (2023) · ENRS Abstract (2017)