

# Peter N. Dobbs

[peterdobbs77.github.io](https://peterdobbs77.github.io)

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Open to Relocation

## PROFESSIONAL EXPERIENCE CANON MEDICAL INFORMATICS, INC, MINNETONKA, MN

### Senior Product Analyst

February 2025 - May 2025

- Highly visible role with end-to-end ownership of platform development across global teams (Minnesota, Japan, Edinburgh)
- Data analysis and visualization in Python
- Continuously maximizing product value and quality
- Experimenting with new product capabilities and customer experience (CX)
- Making data-driven decisions based on product usage and performance
- Collaborating with SMEs to share technical and medical industry knowledge with product teams

### Software Engineer

February 2022 - February 2025

- Championed projects to enhance integration with external data sources
- Implemented compliance to the latest Cybersecurity Guidance from the FDA
- Drove collection and analysis of product usage and performance data
- Collaborated with Product Managers and various Stakeholders across the globe to construct product roadmaps
- Led defect review board and product hazard analysis activities
- Defined and implemented new processes for handling vulnerabilities reported against an SBOM

### Associate Software Engineer

May 2020 - February 2022

- Designed and implemented data model for financial and operational analysis of medical imaging departments
- Developed custom Apache NiFi processors to drive ETL of HL7 and DICOM medical data
- Created visualization of hospital operations with Elasticsearch and Kibana
- Implemented ATNA-based auditing for Role-based Access Controls

## MARQUETTE ENERGY ANALYTICS, LLC, MILWAUKEE, WI

### Software Developer / Product Owner

October 2018 - May 2020

- Primary contact for licensed products at five of our top customer sites.
- Developer of data access and visualization tools.
- Responsible for deploying regular updates for forecasting models on the cloud.
- Culture-influencer within the startup.

## EDUCATION

**Master of Science**, Mathematical, Statistical, and Computational Sciences

Marquette University Graduate School, Milwaukee, WI, Spring 2021

**Bachelor of Science**, Biomedical Engineering - Biocomputing

Marquette University Opus College of Engineering, Milwaukee, WI, May 2018

## APPLIED SKILLS

**Programming Languages:** Python, SQL, R, Matlab, C#, Java








**Data Analytics:** PyTorch/TensorFlow, Jupyter Notebooks, RStudio, PowerBI, Apache NiFi, Elasticsearch/Kibana, Apache Spark, LangChain

**Development:** Data Layers, Data Orchestration, Data Warehousing, Data Modeling, Git, Agile Scrum, CI/CD, Deon Ethical Checklist, REST API

**CySec:** Risk Analysis, CVSS, EPSS, VEX, SBOM, CycloneDX, DependencyTrack, ATNA auditing

**Platforms:** Windows, Linux, AWS, Azure

**Health Standards Experience:** HL7v2, HL7 FHIR, DICOM, IHE

CERTIFICATES	<b>Agentic AI</b> <a href="#">Course Certificate</a> DeepLearning.AI 9 October 2025 Developing multi-agent systems for project planning, data analysis and visualization, customer support, market research, and more
	<b>CVSS v3.1: FIRST Learning</b> 13 December 2024 Detecting and scoring security vulnerabilities according to the standard CVSS process.
	<b>A-CSPO: Advanced Certified Scrum Product Owner</b> 21 November 2023
	<b>CSPO: Certified Scrum Product Owner</b> 6 August 2021
	<b>QI 104: Interpreting Data</b> 29 October 2018
PUBLICATIONS	<b><i>Towards Developing an EMR in Mental Health Care for Children's Mental Health Development among the Underserved Communities in USA.</i></b> 2021 Kazi Zawad Arefin, Kazi Shafiul Alam, Masud Rabbani, <b>Peter Dobbs</b> , Leah Jepson, Amy Leventhal, Amy Van Hecke and Sheikh Iqbal Ahamed arXiv preprint arXiv:1706.06969
FEATURED TALKS	<b><i>DICOM For Informaticists, Part 1</i></b> 
	<b><i>DICOM For Informaticists, Part 2</i></b>  Pair of recorded lectures, created as a part of the SIIM CDI Series, introducing DICOM to aspiring Clinical Data Informaticists.
	<b><i>SIIMcast Episode 49: Hackathon 2</i></b> In Spring of 2020, I was invited to speak about my experiences at the SIIM Hackathon and advocate for others to participate.
	<b><i>Nyandwi Muzungu: Medical Device Repair in Constrained Environments</i></b>  In November 2019, I was invited to give a talk as a part of the Global Innovation Seminar Series at University of Wisconsin. The event coordinators asked me to share some of my experiences from my trips to East Africa.
FEATURED PROJECTS <a href="#">peterdobbs77</a>	<b><i>Daily Coding</i></b>  Keeping my skills fresh and learning new ones. Lately I've been upskilling in Generative AI and Machine Learning.
	<b><i>Object Tracking</i></b>  Experiments with and implementations of object detection and tracking. The main focus is on analyzing film of ultimate frisbee games, but I also have been extending my experience with eye tracking (continuing from my Eye Tracking project).
	<b><i>Eye Detection</i></b>  This was a collaborative project to build an eye detection application. I lead the team responsible for creating the software requirements specification (SRS) for the edge detection step. I then received the SRS for the circle (pupil) detection step and implemented it in C++.
	<b><i>Expectation Maximization Algorithm</i></b>  The EM Algorithm is an iterative method that can be used to find model parameters. This project implemented a R shiny app that takes in data from a 1-dimensional mixture model and finds the optimal parameters to represent the distribution of that data. The final product is published to <a href="https://peterdobbs.shinyapps.io/em-algorithm">peterdobbs.shinyapps.io/em-algorithm</a> .
REFERENCES	available upon request