

Brad Pfahl

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Software Engineer

Medical Imaging professional seeking to transition into software engineering, leveraging healthcare experience and technical skills to advance the field through innovative AI solutions.

Education

Western Governors University

- Bachelor of Science in Computer Science

Salt Lake City, UT
May 2023 – May 2025

Misericordia University

- Bachelor of Science in Medical Imaging with minor in Organizational Management

Dallas, PA
August 2013 – May 2017

Work Experience

Lehigh Valley Imaging – Cedar Crest Hospital

Allentown, PA

MRI Technologist

October 2020 – Present

- Performed MRI procedures overnight at level 1 trauma hospital with 1.5T and 3T GE magnets
- Acting as lead technologist to small team of staff to ensure quality patient safety and care

Lehigh Valley Health Network – Cedar Crest Hospital

Allentown, PA

Radiologic Technologist

March 2019 – October 2020

- Working in a level 1 trauma hospital provided general radiography along with a small team overnight
- Extensive trauma and ICU imaging requiring adaptability and problem-solving skills

Lackawanna Mobile X-ray

Dunmore, PA

Radiologic Technologist

October 2017 – May 2019

- Provided Imaging services for a variety of environments within a two-hour radius of Dunmore, PA including nursing homes, rehab centers, correctional facilities, and in-home care.
- Need for a lot of creative solutions to imaging needs based on the environment and patient

Project Experience

Radiology Assistant – Chest X-ray Classification AI Tool

- Developed a convolutional neural network (CNN) using TensorFlow/Keras to classify chest X-rays as normal or abnormal, aiding radiologist workflow
- Trained model on NIH Chest X-ray dataset, achieving high accuracy through image preprocessing, augmentation, and real-time batch training
- Delivered both Colab-compatible version; implemented interactive prediction tool with image display and confidence score

WGUPS Routing Program Implementation – Developed to optimize package routing and delivery logistics

- Designed and implemented a custom hash table for efficient package storage and retrieval
- Improved logistical efficiency by optimizing route calculations to stay within mileage constraints
- Conducted comprehensive testing to ensure reliability and scalability

Advanced Java – Deploying a Modified Multi-threaded Spring Application to the Cloud – Focused on enhancing a scheduling system through containerization and multi-threading techniques

- Designed multi-threaded processes for language translation and time zone conversion
- Built and deployed a Docker image to streamline application distribution

Back-End Application Programming – Created to modernize a travel agency's backend system and streamline operations

- Implemented REST APIs to support booking and checkout workflows
- Designed database schemas and integrated MySQL for data persistence

Class Roster Application – Designed to manage and migrate student data efficiently

- Built robust Student and Roster classes to encapsulate data and streamline operations
- Developed tools for data validation, average calculations, and filtering by degree program
- Improved error handling to ensure data accuracy and system reliability

Skills

- Programming Languages:** Python, Java, C++
- Tools and Frameworks:** Docker, Spring, IntelliJ IDEA, PyCharm, MySQL
- Certifications:** Linux Professional Institute (LPI) Certified, ITIL Foundation Certification