

Summary for Oxford Global Resources

Application Specialist / Software Architect (Contract)

Marquette University School of Dentistry (MUSoD)

During my contract engagement at MUSoD, I supported and improved several mission-critical academic and clinical systems. My contributions expanded from application support into strategic modernization and architectural stabilization, significantly improving reliability, maintainability, and long-term sustainability of core systems.

Key Accomplishments

1. Modernized and stabilized MusodDjango (main application)

- Reorganized and clarified legacy Django codebases.
- Delivered new modules (Absence Requests, External Rotations).
- Improved configuration consistency between environments.
- Reduced regression risk through targeted micro-refactors.

2. Created a long-term modernization plan for a fragile 5-hour nightly ETL pipeline

- Analyzed multi-stage ETL structure and bottlenecks.
- Designed shadow pipeline modernization strategy.
- Outlined roadmap for restructuring and performance improvements.

3. Improved cross-team alignment and requirements clarity

- Collaborated with faculty and clinic leadership.
- Translated requirements into reliable technical solutions.
- Provided architectural clarity and direction.

4. Introduced documentation and continuity practices

- Authored module and process documentation.
- Developed onboarding and modernization reference materials.
- Reduced institutional dependency on individual contributors.

Technologies

Django, Python, MSSQL, SQL, REST APIs, ETL scripting, NGINX/Gunicorn, data processing pipelines