

Software Pillars of Excellence

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Context:

- Our aim is to design and implement software solutions for research excellence in earthquake resilience problems. However, we also aim to be at the bleeding edge of software development in general (with earthquake resilience providing a 'test bed' for application)

Four Pillars of Software of Excellence

1. Workflow orchestration and HPC optimization
2. Visualization
3. Interfaces and databases to handle big data
4. Artificial Intelligence

Implications:

- These pillars of excellence imply that software solutions in these areas are not created simply to facilitate research, but that the software solutions created are research in themselves. i.e. we aim to push the boundaries in these areas.
- Of course, achieving excellence in any specific area is a planned process after achieving basic functionality; and the innovations toward achieving excellence will focus on (enhanced) functionality, reliability, cost, and flexibility.