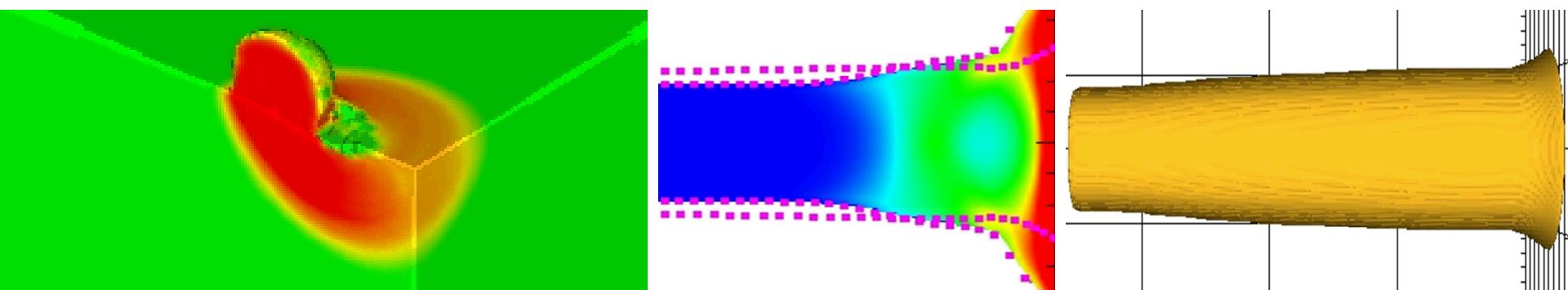


Exceptional service in the national interest



Brian Ferri

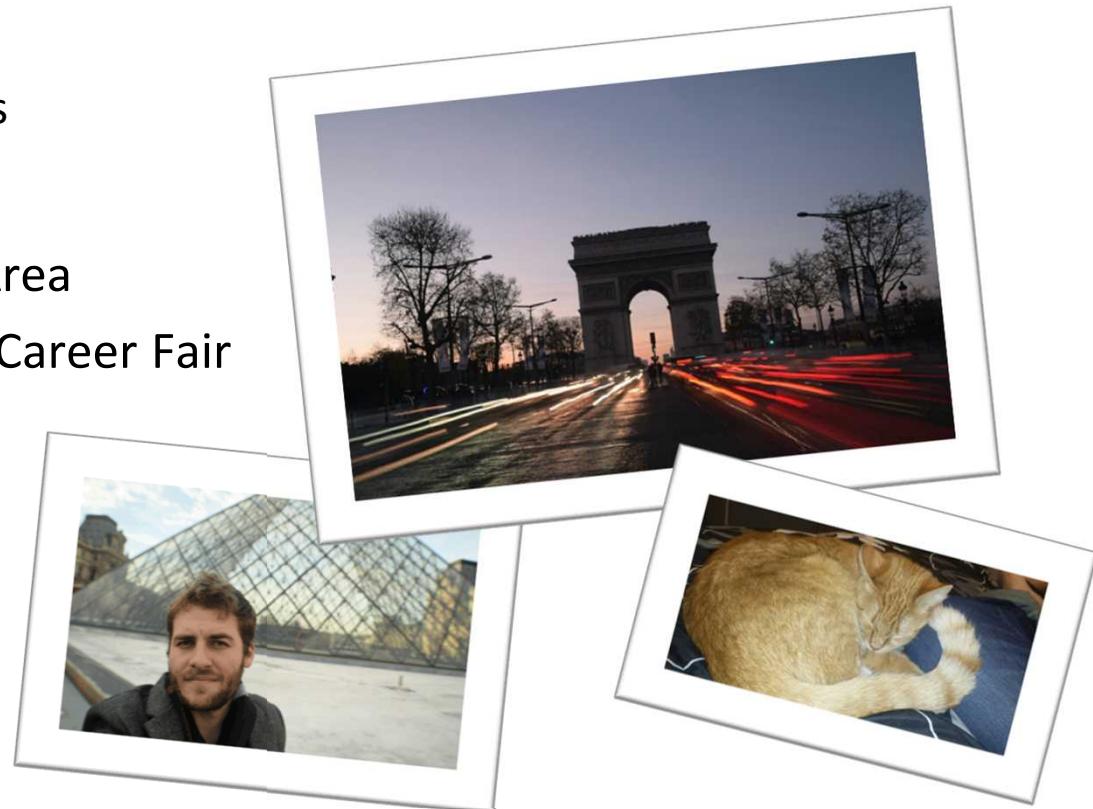
Org - 1555/Manager - John Pott/Mentor - Eric Harstad



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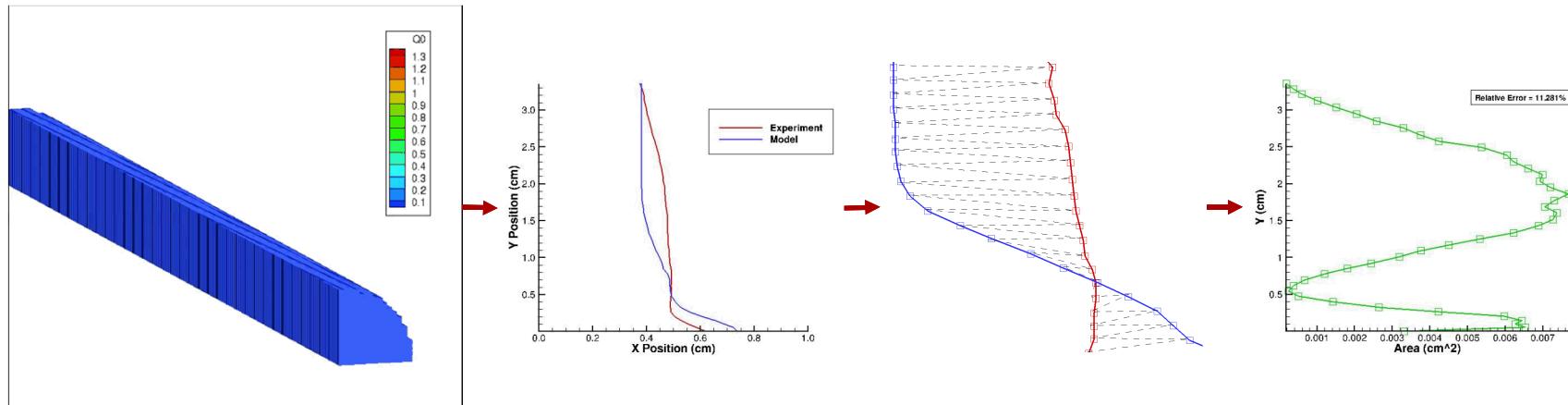
Personal Background

- School - Georgia Tech
- Master's Mechanical Engineering
 - Interests
 - Shock Physics
 - Mechanics of Materials
- Why Sandia?
 - Overlap with Research Area
 - Talked with Sandians at Career Fair
- Hobbies
 - Hanging with my cat
 - Fishing
 - Travel
 - Photography



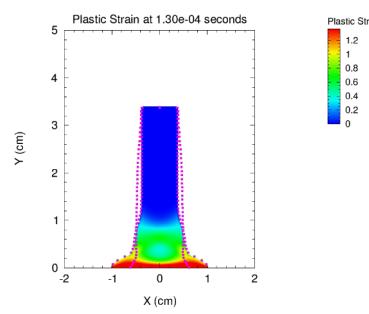
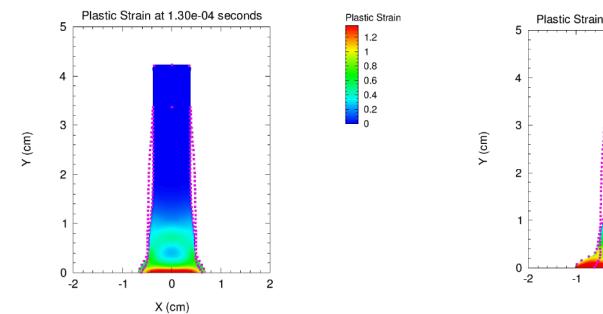
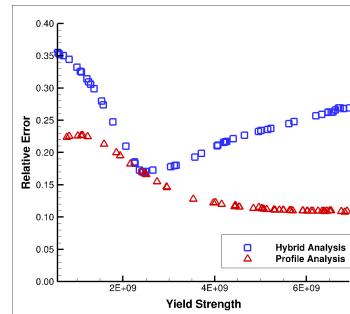
Benchmarking using Strength Models in CTH

- Background
 - CTH built-in strength models
 - Combined with EOS describe material response to dynamic loading
- Objective
 - Quantitatively describe the model deviation
 - Deviation to different builds of the code
 - Deviation to Taylor Cylinder experimental data



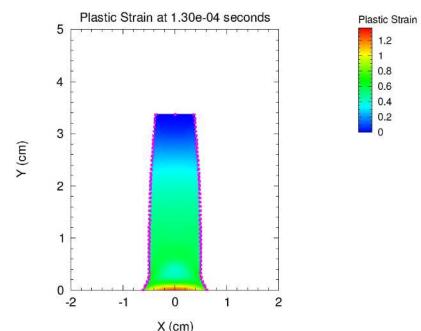
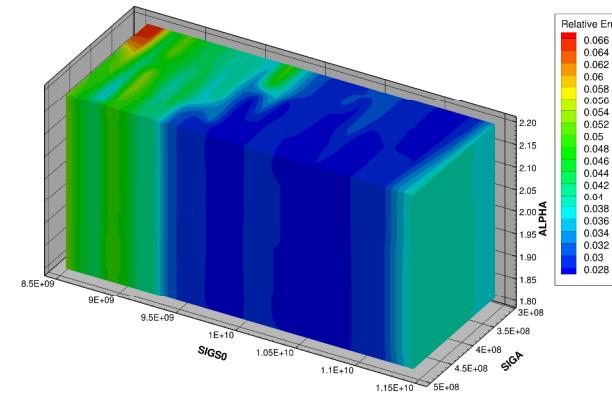
Results

- EPP Model Optimization with 1D Parameter Control



- MTS Model Optimization with 3D Parameter Control

- Key Tools and Takeaways
 - CTH – Eulerian Hydrocode
 - Aprepro
 - Scripting in BASH
 - Python – NumPy
 - Tecplot



My Experience

- Challenging Work
- Tours
- Networking
- Southwestern Environment
- The one thing I will most remember about my Sandia experience is:

