## Summary

Mechanical engineer with a strong background in finite element analysis, engineering software development, and design optimization & automation.

## Skills

## Engineering design / structural analysis (ANSYS, Abaqus, NX, Creo, CATIA, Solidworks)

* Design/analysis automation (iSight/Fiper,Scipy)

## Custom engineering software development (Python, Tcl/Tk, C/C++, Fortran, VBA, Matlab)

## GD&T, DFM, DFA

## Experience

**12/2012 – Current (3.5 years)Senior Engineer**

***Blattman Brothers Consulting*** – Houston TX

Engineering project manager for mechanical and mining engineering

* Developed engineering software in python; directed client testing/validation efforts
* Incorporated regression fit Bezier curves for airfoil design; ANSYS automation
* Built solid geologic/design models, block models, drill hole db, and economic models
* Regression modeling and optimization for geometric & economic models
* Developed tools for 3D Printing FEA and mining block models
* Managed budget, scope, sub-contractors, etc. for $20k-$80k engineering projects

**6/2008 – 12/2012  
(4.5 years)Senior Engineer**

***Solar Turbines Inc.*** – San Diego, CA

Design lead in advanced methods group for of turbomachinery components

* FEA analyst for various internal design groups (static structural, modal, thermal, fatigue, creep, flutter)
* Incorporated methods for critical plane fatigue methods
* Created custom software tools for ANSYS MAPDL, Workbench, Abaqus
* Dept liaison between mechanical design and materials groups
* Established standard analysis methods for compressor blades

**10/2006 – 5/2008 (*1.5 years)***

**Engineer**

***Belcan Engineering*** – Provo, UT

Team lead for CAD modeling and software development group

* Built custom tools in NX (Unigraphics) for CAD model inspection and validation
* Performed duties while concurrently completing MS degree

## Education

* MS – Mechanical Engineering (2008)  
  Brigham Young University
* BS – Mechanical Engineering (2006)  
  Brigham Young University
* FE Exam (2006)

## Activities/Interests/Misc

* Fluent in Portuguese (written/spoken)
* Semi-fluent in Spanish

## Web design/photography