

MATT CLATWORTHY

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EDUCATION

2004 - 2008

UNIVERSITY OF HOUSTON

BACHELOR OF SCIENCE IN INDUSTRIAL DESIGN

SKILLS

COMPUTER

Adobe: Photoshop, Illustrator,
InDesign

Tableau

Programming: Python, VBA

3DSMax

Vray & KeyShot Renderer

CATIA V5

Solidworks

Abaqus FEA

Rhino3D

AutoCAD

Excel

TECHNICAL

Finite Element Analysis [FEA]

Complex Surface Modeling

Photorealistic Renderings

Drafting

Graphic / Website Design

Product Animations

PERSONAL

Detail Oriented

Self Motivated

Reliable

Quick Learner

Goal Driven

Innovative

RELEVANT EXPERIENCE

2013 - Present

U. S. STEEL TUBULAR PRODUCTS

Houston, TX

SR. PRODUCT DEVELOPER

- Run Design Optimization studies and validation FEA's for threaded pipe connections
- Develop several complex Python scripts for Abaqus in order to automate FEA Pre/Post processing; reducing work flow by over 90%
- Analyze Product Family FEA data to ensure sealability and structural performance is consistent based on API 5C5 Testing Standards
- Create Photo Realistic Renderings of products for the marketing department
- Hardware and Software Administrator for my department, including managing a Linux HPC

2009 - 2013

TORQUELOCK / GANDYTEC

Conroe, TX

PRODUCT DEVELOPER

- Involved in the design of multiple premium pipe connections used throughout the world
- Set up and evaluate Finite Element Analysis models that are properly meshed and defined
- Responsible for creating accurate 3D models from engineers sketches and drawings
- Develop manufacturing, inspection, and gage drawings while checking for anomalies
- Coordinate with suppliers to order inserts and overlays that are required for manufacturing
- Developed corporate identity by providing: website development, brochures & presentations

2009

GRAVITAS\|VIZ

Houston, TX

3D MODELER

- Part of a team that provides Architectural Renderings for a wide range of clients
- Modeled over 100 objects: Everything from appliances, computer equipment, restaurant supplies, furniture, hospital equipment, to HESS trucks

2007 - 2009

UNI-FORM COMPONENTS

Houston, TX

DESIGNER

- Introduced 3D CAD into the manufacturing process with Solidworks and FASTBlank
- Developed a technique that significantly reduces manufacturing time and uses less material
- Responsible for producing CNC laser cut drawings for \$100,000+ projects
- Designed metal dies for pressed parts with shop and assembly drawings

2005 - 2008

UNIVERSITY OF HOUSTON

Houston, TX

TUTOR - COMPUTER AIDED INDUSTRIAL DESIGN

- Give students advice on how to properly approach modeling their own designs
- Troubleshoot modeling problems: Failed fillets, poor surface continuity and surface errors
- Teach students how to render with VRay, including texturing and animation in 3DSMax

PATENTS & CERTIFICATIONS

2022 +

NAMED INVENTOR ON PATENTS

Houston, TX

- Patent US17/533,598 – Threaded pipe connections with improved leak tightness

2010 +

CERTIFIED CATIA AND ABAQUS PROFESSIONAL

Houston, TX

- CATIA V5 Advanced Surfacing, Metal Inelasticity with Abaqus, and FE-Safe