

## experience

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## skills & software

## Collaborative Design Development

### Reflective and Creative Problem Solving

## Graphic Design

### Technical Illustration

# Generalized Working Understanding of Human Factors and Ergonomics Through Academic and Working Experience

## Materials Properties and Processes

## Project Management

## Workflow and Process Mapping, Documentation, Evaluation and Development

## Sketching, Rendering and Visual Communication

### Model Construction, Prototyping and Fabrication

### 3-D Graphics and Digital Modeling/Sculpting: NURBS, Mesh and Solids Modeling

## Photo-realistic Computational Rendering and Compositing

Computational Design (Algorithmic, Parametric, Generative)

[illegible]

*Adobe Creative Suite  
Emphasis on Illustrator, Photoshop  
and InDesign*

## Clip Studio Painter

*Rhinoceros*

Grasshopper

## AutoDesk Alias

*Dynamo (working knowledge)*

Siemens NX, Unigraphics (working knowledge)

TeamCenter

*Microsoft Office Suite*

## Blender

### Cycles rendering engine

V-Ray Next, Chaos Group

### Substance Painter

*Substance Designer*

General Motors Warren, MI | Oct 2020 - Present

- Subject Matter Expert (SME) in the use of Computational Design and algorithms to build complex sculpted surfaces for both conceptual and pre-production purposes.
- Develop workflows and process for integration of Computational Design strategies into the overall vehicle design process.
- SME in the use of Rhinoceros - Grasshopper software
- Collaborate in the development of advanced themed interior CMF (color material and finish) treatments through the creation of branded textures and patterns
- Create vehicle interior themes through the use of digital sculpting tools and form development.

College for Creative Studies Detroit, MI | Jan 2020 - Present  
Adjunct Professor for Computational Design, Transportation  
Design Department

- Wrote curriculum for 'Introduction to Computational Design: Grasshopper for Rhinoceros'
- Teaching DTR 461 C: 3D Modeling & Rendering IV - Computational Transportation Design
- Instruct students in the use of Grasshopper/Rhinoceros for algorithmic modeling and design
- Lecture on the new and evolving field of Computational Design, in both theory and application, as it pertains to the current design paradigm and its impact on design methodology, the nature of work within large organizations, advanced manufacturing, and broader society
- Demonstrate through practical examples, how algorithm aided design and computational modeling can be used to inform design decisions, improve workflow efficiencies, reduce duplication of tasks and inspire form finding and design discovery through novel methods and inputs
- Provide insight into how Computational Design can add value in the fields of product, automotive & transportation design and new forms of advanced additive manufacturing

General Motors; Tech Talenta (Contract) Warren, MI | June 2016 - May 2020

Creative Designer, Graphics Release - User Experience Studio

- Responsible for the design, release and management of interior component graphics
- Track and evaluate change management throughout the design process
- Subject Matter Expert (SME) for Grasshopper/Rhinoceros N.U.R.B.S
- Built and piloted a new design workflow for an OpEx project that reduced process complexity by a factor of nearly 70% compared to the previous method; eliminating redundancies, inefficiencies and increasing quality outcomes

- Led design process evaluation for 'Graphics on Surface' assignment to improve component execution; generated process and workflow documentation, its impact on the GVDP and drafted cost benefit analysis
- Collaborated and consulted with various stakeholders across the design organization to implement the 'Graphics on Surface' strategy, procure software critical to the programs success and solicited feedback to inform possible improvements
- Designed and provided a variety of unique patterns and surface textures to counterparts in the Cadillac Interior & Color and Trim Studios for special projects and request, using algorithmic and computational modeling tools
- Continue to evaluate the progress of the new 'Graphics on Surface' implementation and draft proposals aimed at continuous improvement of the process as new feedback becomes available from its use
- Participate in Grasshopper working group exploring design applications for Computational Design and algorithm aided parametric design strategies
- Consultant for cross platform collaboration on interdisciplinary integration of new technology and computational design
- Participate in component strategy meetings and work collaboratively with Design Release Engineers, Integration Design Engineers, and suppliers to problem solve, analyze costs and inform design decisions
- Work cross functionally with Human Factors to ensure that parts and graphics meet ergonomic requirements

## New Vintage USA Ferndale, MI | April 2013 - June 2016

### Industrial Designer & Production Manager

- Created original design concepts for production and custom automotive clusters, gauges and indicator panels
- Managed the design, documentation and prototype of instrument cases, housing and mounting solutions
- Create sketches, renderings, graphics and models for client review and approval
- Designed dials and gauges for a variety of international standards for global clients
- Created cost estimates for custom and production projects
- Managed production scheduling in weekly, monthly and yearly time frames
- Sourced materials for production and outside services
- Researched and analyzed trends and customer segmentation in the automotive aftermarket business
- Engaged in sales, secured clients and managed distribution accounts; cultivated client relationship large and small globally and sought out new sales and distribution channels
- Tracked and managed shipping, delivery and logistics of product and supplies to and from clients globally
- Traveled to trade shows and conventions to represent the brand and network
- Created graphics and promotional material for advertisements social media posts and instructional material

**education** Western Michigan University Kalamazoo, MI  
Bachelors of Science: University Curriculum - Industrial Design  
Minor: Fine Art