

# William Halversen

6701 Osteen Rd. New Port Richey, FL 34653 • 727.264.6331 • williamhalversen@live.com

portfolio – personally designed & developed: <http://3d.paradigm-synergy.info>

Objective: **Mechanical Engineering CAD Designer** *resume page 1 of 5*

Dear Human Resource Manager,

In addition to CAD designing engines for Ford , I have worked in various capacities, from supervision to teaching. The enclosed resume summarizes my education, skills, and work experience. Some of my accomplishments include:

- Ford Motorsport performance Intake Manifold using calculus – based DUCT software and parametric solid CAD
- Presented new engine concepts to Ford Engine Division V.P.
- Facilitated brainstorming to develop Ford departmental CAD software procedures
- Optimized method for design clearance to body hood sheet metal at Ford engine
- Started 3D Drafting Club, elected president at P-HCC
- Brain Bowl Team member & leader at P-HCC, team placed 3<sup>rd</sup> at State
- Outstanding Student Leader P-HCC Felicia Barker Award

In the last few years, I served as caregiver first to my father, then to my mother, through their terminal illnesses. During this difficult period, I kept my work skills updated by obtaining an AA degree with a Drafting Technology concentration. Independently studying computer hardware, operating systems, and web design resulted in building a computer, loading a dual-boot configuration of Windows with Red Hat Enterprise Linux, and designing and developing a personal portfolio website. Additionally, subscribing to NASA TechBriefs, Design News, and actively participating in industry news groups, maintains my knowledge of the latest technology. Lately , I have designed independent contract projects in CAD . My interests include design and construction of speaker crossover electrical circuits. Combining my extensive experience with my proven ability to quickly learn and apply new technical skills, I would be an asset to your team.

Regards,

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## SKILLS

CAD expertise:	Parametric Solid Modeling NURBS Surfacing Computervision CADD5 5 SDRC I-DEAS AutoCAD & AutoLISP SolidWorks Catia Siemens NX (UniGraphics) PTC Creo (Wildfire ; Pro/ENGINEER)
Design capabilities:	Concept Sketching Descriptive Geometry Design for Assembly (DFA) Design for Manufacturing (DFM) Geometric Dimensioning and Tolerancing (GD&T) ASME Y14.5
Part categories:	Sheet metal stampings Machined metal Cast iron Die cast aluminum Injection molded plastic
Software knowledge:	Windows, UNIX, Red Hat Enterprise Linux MS Office Suite: Word, Excel, Access, PowerPoint BASIC, FORTRAN, C++ HTML, css, javaScript, php Photoshop, InDesign, FontForge
Business abilities:	Cash Accounting Process Improvement Leadership Supervision
Special skills:	Creative Thinking Tutoring

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## EXPERIENCE

*Recent work includes:*

**CAD Contracting** for independent projects in the Tampa Bay area, FL; Pasco-Hernando Community College, New Port Richey, FL three years : **Graphic Design & computer systems** in the Student Activities Dept; **Lab aide** in Science Dept; **Teacher's aide** in the Drafting Dept. – Developed and Presented CAD II lab lectures for AutoCAD solid modeling; **Family caregiver** (primary) to mother due to cancer; **Mobile DJ** in the Tampa Bay area, FL; **Owner / Operator Home Maintenance** in the Tampa Bay area, FL; **Family caregiver** (secondary) to my father due to strokes; **Supervisor** at One Stop Smog in Carmichael, CA; **Substitute Teacher** in Allen Park and Southgate, MI; **VAX Mainframe Computer Operator** at Mavricc Financial Services in Troy, MI.

1990 – 1998 **Senior Engineering Designer** – Ford Powertrain – Dearborn, MI

- Special Early Retirement 1998
- Designed major engine systems on 3D Solid Parametric CAD
- Concept sketched major engine systems, including Cylinder Heads
- Presented designs at weekly cross – functional design team meetings with engineering and manufacturing
- Applying Geometric Dimensioning and Tolerancing (GD&T) ASME Y14.5M
- Tolerance stack ups
- CAD assembly data in Concurrent Assembly Mock Up (CAMU) PLM
- Directed detailers
- Output to rapid prototype 3D printing Stereo Lithography (STL)
- CAD data exchange to IGES, & STEP
- Liaised with vendors & suppliers

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## EXPERIENCE (continued)

- 1989 – 1990 **Automotive Engine Designer** – Engineering Service Inc. – Southfield, MI
- Contracted on-site to Ford Powertrain – Dearborn, MI
  - Designed engine components
- 1988 – 1989 **Automotive Designer** – Douglas & Lomason – Farmington Hills, MI
- Designed seat track mechanism
  - Human factors calculations & engineering of spring forces
  - Designed ergonomic seat cushion
  - Directed detailers
  - Coordinated in – house prototype production
  - Reviewed FMVSS testing results
- 1987 – 1988 **Automotive Body Mechanism Designer** – Jubbu Designers – Plymouth, MI
- Door layout, including window regulator and rear – view mirror
  - Exterior belt line plastic trim
- 1986 – 1987 **Mechanical Drafter** – ABC Packaging Machinery Corp. – Tarpon Springs, FL
- 1985 – 1986 **Bartender** – Innisbrook Golf Resort – Tarpon Springs, FL
- 1984 **Automotive Body Mechanism Designer** – Jubbu Designers, Inc – Plymouth, MI
- Designed a Convertible Top Stack Mechanism Prototype Layout
  - Designed door seal system aluminum extrusion and rubber gasket
  - Packaged hydraulic actuator
  - Coordinated shop production
  - Liaised with Ford

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## EDUCATION

2004 – 2009 Pasco-Hernando Community College, New Port Richey, FL – part time

**AA degree 2009 – Drafting & Design Technology concentration**

1994 -1996 Wayne State University, Detroit, MI – part-time

**Mechanical Engineering curricula** attained senior level

1988 Synchronized Design & Development – Mt. Clemens, MI – part-time

**Certificates** – Computervision CADD 4x: 2D, 3D, & NURBS Surfacing

1982 – 1984 Memphis State University, Memphis, TN – full-time

**Mechanical Engineering curricula** attained junior level

1980 – 1981 Henry Ford Community College – Dearborn, MI – full-time

**Drafting & Pre-Engineering curricula** – attained sophomore level

Professional Development Classes:

Descriptive Geometry by Henry Ford Community College

Geometric Dimensioning and Tolerancing (GD&T) ANSI Y14.5M by Ford

Design For Manufacturing by Boothroyd & Dewhurst

Design For Assembly by Boothroyd & Dewhurst

Metrology & Gage R&R by Ford

Manufacturing Processes – Cutting by Ford

NC Tooling Overview by Ford

Threaded Fasteners by Ford

Engine Design by John B Heywood (MIT) by Ford

Effective Listening by Ford

Assertive Communication by Ford

Achieving Win-Win Outcomes by Ford

Team Oriented Problem Solving & 8 Disciplines by Ford

Creative Decision Making by Ford

Time Management by Franklin TimeQuest

Small Business Start-up by Small Business Administration & SCORE

Small Business Management by John King, WSU

Dale Carnegie Course

Leadership Development seminars by P-HCC