

CAD/CAM Master, Software Developer, & Tech Guru

Summary of Qualifications

- Over 30 years experience with anything and everything AutoCAD (started in the days of MS-DOS).
- 11 years manufacturing design development and CNC programming in AutoCAD with added third-party CAM G-Code tool.
- Over 30 years developing custom software and support routines for automating AutoCAD and Microsoft Office applications, and for standalone Windows applications.
- Enthusiasm and energy stem from self-confidence and depth-of-knowledge.
- 30-plus years creating high-quality deliverable electronic documents—drawings, reports, memoranda, specifications, images—all with fine attention to detail, consistency, and usability.
- Over 25 years teaching computer software and technology classes.
- Microsoft Certified Office Specialist Master – Office 2010.

Strengths and Skills

- Excellent verbal and written communication skills.
- Comfortable working in-office, remote, or hybrid.
- Self-starter, sees the “big picture” when solving problems.
- Insatiably curious about everything.
- Works effectively as a team member.
- Skilled with collaboration tools (Zoom, Teams, MS 365, SharePoint).
- Perversely knowledgeable about a wide range of software applications.
- An in-demand West Coast Swing dancer.

Professional Experience

Software Development, Test, and QA	Developed and still maintain and use custom AutoCAD VBA tools to support office drafting standards, and programming for numerically-controlled (CNC) manufacturing systems. <ul style="list-style-type: none">• Hours spent on software development have long since paid themselves back in time saved on projects.<ul style="list-style-type: none">– CAD drawing analysis/repair tool solved an obtuse, long-standing problem that caused NC coding to crash. Ported custom VBA AutoCAD tools to the .NET framework. Developed and still maintain and use a library of VBA routines for MS Office automation. Developed large Excel workbooks with custom VBA code to: <ul style="list-style-type: none">• Automate creating complex Bills of Materials.<ul style="list-style-type: none">– Significantly eased manufacturer’s transition to QuickBooks.• Automate creating complex price quotes for custom manufactured products.<ul style="list-style-type: none">– Significant increase in accuracy and profitability of quotes. Created tools to automate initialization of flight simulator used to verify Space Shuttle avionics software. <ul style="list-style-type: none">• Saved the contractor (Rockwell International) from potential severe cost and schedule overruns.
Programming Languages / Paradigms	<ul style="list-style-type: none">• Visual Basic for Applications (VBA)• Visual Basic.NET• HTML• Python (Learning)• Visual Basic• C# .NET (in a pinch!)• CSS• Javascript (Learning)
CAD Management and Drafting / CAM Management and Programming	Eleven years experience with AutoCAD in manufacturing design and CAM NC coding: <ul style="list-style-type: none">• Manufacturing design development and documentation:• 3D visualization (developed custom automation tool that cut time for this process to a small fraction).• CAM sheet layout and nesting.• Extensive use of Router-CIM (CIM-Tech) to generate G-Code for Komo router table.<ul style="list-style-type: none">– Oversaw major redesign of office standards for CAD drafting and CAM programming in 2021 to support arrival of new milling machine – significant improvement seen in design-to-manufacture consistency, reliability, and efficiency.• Taught other CAD/CAM personnel how to use updated office CAD/CAM standards. Wide-ranging experience with AutoCAD and Revit, preparing 2D and 3D architectural models & drawings: <ul style="list-style-type: none">• Preliminary Design, Massing Studies, Site Analysis, As-Built Documentation.• Design visualizations, mapping 3-D renderings into existing site photos with Photoshop.• Site Plans, Architectural and Structural drawings, Landscaping Plans, Utility Plans, Details.• Coordinated construction document sets and notes for Architectural, Structural, and Landscape projects.

Professional Experience (Continued)

Project Management	<p>Wrote requirements and procurement specifications for a large-scale real-time simulation system to support assembly and integration testing of major Space Station hardware and software components.</p> <p>Provided Microsoft Windows-based hardware & software consulting (Windows XP through Windows 10) to a wide variety of business and individual clients. All consulting work has been by referral from satisfied clients.</p>
Software Training	<p>Trained draftsmen in practical and effective use of AutoCAD.</p> <p>Taught classes in Microsoft Office (Word, Excel, PowerPoint, and Access) at beginning and intermediate levels. Receive consistent excellent ratings from students (over 900 since 2001).</p> <p>Prepared curricula and course descriptions. Prepared and provided written course materials and handouts.</p> <p>Taught clients to use adaptive computer technology, that is, hardware and software to accommodate disabilities like blindness (screen-reader programs) and repetitive stress injuries (speech recognition software).</p>
Avionics System Engineering & Test	<p>Lead Engineer for a team of engineers and technicians conducting QA-controlled verification of Space Shuttle on-orbit, entry, descent, and landing avionics system software.</p>

Employment History

Omnirax Furniture Company	Sausalito, Calif.	AutoCAD & Office Automation Specialist & Instructor; CAD Detailer; CAD/CAM Integration Specialist; Graphic Designer	2012, Nov. – 2023, Nov.
Donald L. Blayney & Associates Systems & Software Consulting	San Rafael, Calif. San Francisco Bay Area	CAD & IT Manager (contractor) Independent Consultant (self-employed)	2002, Jan. – Present 2002, Jan. – Present
Synapse Adaptive	San Rafael, Calif.	Instructor, Office Manager	2001, Feb. – 2001, Dec.
Tamalpais USD Adult Education	Mill Valley, Calif.	Instructor	2001, Jan. – 2015, Jan.
D. H. G. Coleman Architect & Assoc.	San Rafael, Calif.	CAD & IT Manager (contractor)	2000, Aug. – 2001, Feb.
ATS Computer Training	Hesperia, Calif.	Instructor (contractor)	1999, Feb. – 2000, Aug.

Education

B.S. Aerospace Engineering (dual major in Aerospace Engineering and Automatic Control Systems Engineering), United States Naval Academy, Annapolis, Maryland

Volunteer Work

- Adult mentor and “cat herder” to High School Students participating in Regional Semi-Final and World Final events for The International Space Settlement Design Competition (ISSDC), a multi-day aerospace industry simulation, focused on providing real-world inspired work and collaboration scenarios – students experience what large-scale aerospace bid and contract work is really like!
- U.S. Naval Academy “Blue and Gold” Officer – Adult mentor and advisor to high-school students applying for entrance to USNA.

Professional Objective

To continue and enhance a well-established, diversified career by pursuing interesting and challenging high-technology work.

References

- Available upon request.