

# CHRISTOPHER JOSEPH GARCIA, MBA

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## DIGITAL ENGR. & MANU. STRATEGY & BUSINESS DEVELOPMENT

*Expert in Pioneering & Scaling Disruptive Digital Transformation & Industrial Internet Technologies*

Industrial Internet | Digital Transformation | Model Based Engineering | Digital Thread & Twin | Top Secret Clearance

**Spearheaded Major Digital Transformation Initiatives for Fortune 500 Companies & Federal Agencies**

*Secured \$50+ Million in Venture Capital | Led Teams of 400+ | Thought leader for Digital Thread & Digital Twin*

Customer-focused visionary known for bringing game-changing innovations to engineering and the shop floor through each phase of the technology adoption lifecycle, inspiring early adoption and dominating new markets. Impressive track record of optimizing manufacturing and operational quality by uniting engineering (CAD/PLM) and manufacturing (ERP/MES) systems. Known for leveraging 3D digital design to automate manufacturing and inspection processes. Extensive success in the development, mentoring, motivation, and leadership of top-performing IT and OT personnel.

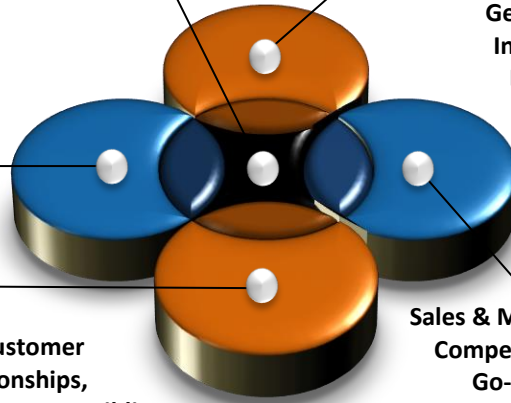
### Digital Design & Manu. Strategic Success

#### Digital Transformation Leader

VP R&D at Dassault/SolidWorks,  
VP Bus Dev at Siemens PLM,  
Vision Evangelism, Social Influencer,  
Digital Transformation Strategy,  
Stakeholder Alignment,  
Global, Matrixed Staff Inspiration,  
Cross Functional Team Leadership  
Team Building & Communications

#### Business & Client Success

Clear Strategic Deployment Roadmaps  
Organizational Change Management, Customer  
Advocacy & Partnerships, C-Suite Relationships,  
Engr, IT & OT Services deployment, Consensus Building,  
Engendered Trust



#### Cutting-Edge Technologies

AI GraphRAG-LLM OpenAI Strategies,  
CAD, PLM, ERP & MES Digital Thread,  
Generative AI Process Automation,  
Industrial Internet of Things (IIoT),  
Digital Twin, Brilliant Factory OT,  
Additive/Subtractive Manufact.  
Data Driven decision making,  
Low-Code/No-Code, CI/CD  
AR/VR/MR 3D CAD Lead  
DOD, FAA Compliance

#### Market Domination

Sales & Marketing & Customer Evangelism,  
Competitive Analysis & Market Verticals,  
Go-to-Market Strategies & Execution,  
Portfolio & Pipeline Strategy,  
Innovation & Growth

### Career Success

EOS Aircraft, Bend Oregon

May 2024 to Present

EOS Aircraft is designing the next generation hybrid-electric commercial aircraft to "Help Usher in a new dawn of regional aviation."

#### Digital Engineering Strategic Advisor

Hired to define and deploy EOS Aircraft's Engineering Digital Transformation strategy & roadmap. Including the following activities:

- **Spearheaded our short & midterm "Compelling Engineering Problems to Solve".** Allowing EOS to accomplish its unique engineering business objectives plus gain a competitive strategic advantage. Securing alignment with EOS Executives, Key Stakeholders, Strategic Customers, 3rd Party Partners, and FAA Airworthiness Title 14 Regulations.
- **Created CAD/PLM/ERP/MES 3-year Platform Roadmap and deployment strategy** outlining timing, resources, and costs associated with the vendor selection process, development (configurations and customizations), deployment, vendor license fees, hardware infrastructure, and required skilled resources. Aligned with FAA Design Type Certification 14 CFR Regulations.
- **Defined Digital Engineering Organization** to support EOS's Digital Engineering team growth focused on the unique integration of external 3<sup>rd</sup> Party Design team domain experts plus critical aerospace manufacturing partners.
- **Developed best practices for vetting the Top CAD/PLM vendor platforms (Dassault, Siemens, and PTC)** against EOS's "Compelling Problems to Solve" including their Public Cloud, Private Cloud, and OnPrem infrastructure offerings.
- **Created AI Framework for internal RAG LLM Engineer tools to accelerate FAA Title 14 CFR Part 21 & 25 Design Type Cert.**

**CANDID INDUSTRIAL INTERNET, Denver, CO**

Sept 2015 to May 2024

*Consulting firm that empowers groundbreaking companies to lead the charge in Industrial Internet (IIoT), Internet 4.0, Digital Thread, Digital Twin, Knowledge Graph – GraphRAG LLM, Model Based Enterprise (MBE), DevOps Platforms, Add/Subtractive Manufacturing.*

**Principal / Founder - Knowledge Leader & Influencer in Connected Factory (IIoT) & Digital Transformation Best Practices**

Launched company to spotlight market trends, build coalitions of industry leaders, and accelerate expansions/advancements within the emerging Digital Transformation & Industrial Internet markets.

Provide expert advice, industry research, and deployment services to C-Suite executives in the areas of business process development, stakeholder engagement, technology deployment, and OCM.

- **Enable clients to successfully deploy and monetize disruptive innovations** in the areas of Digital Transformation and Smart Connected Factories (IIoT). Including CAD-PLM, ERP, MES, Cloud Computing, data science (AI/ML), Low-Code/No-Code Platforms.
- **Engage, educate & align high-ranking stakeholders** from leading manufacturing firms with digital transformation and IIoT technology providers and integration service (SI) companies.
- **Define and evangelize roadmaps, value propositions, and GTM strategies** and lead the transformation of existing enterprise business processes into scalable Digital Transformation and Industrial Internet backbones.

**HIGHLIGHTED CANDID INDUSTRIAL INTERNET ENGAGEMENTS:****BALL AEROSPACE, Boulder, CO**

Oct 2022 – Jan 2023

*Ball Aerospace manufactures spacecraft, components, and instruments for national defense, civil space, and commercial space applications. Ball built the optical technology for both the James Webb Space Telescope (JWST) and the Hubble Telescope.*

**Strategic Advisor for Ball Aerospace Digital Transformation**

Hired to support Ball Aerospace's Digital Transformation roadmap and deployment strategy, particularly focusing on SolidWorks and the 3DEXPERIENCE Platform.

Focused on the rationalization and alignment of our Digital Engineering Strategy (CAD & PLM) with our Corporate Digital Enterprise Strategy (ERP, MES, SCM). Including the ability to successfully deploy critical new digital transformation practices such as Product Line Engineering (PLE), End Item Serial Effectivity (EISE), and Model Base System Engineering (MBSE).

In addition to rationalizing our overall Digital Enterprise Strategy, provided detailed analysis and assessment to:

- **Deploy new digital transformation infrastructure** within Classified and Unclassified environments compliant with ITAR/EAR NIST 800-171 regulations and the new CMMC 2.0 certified compliance requirements.
- **Deploy new cloud-based applications** in conformance with the emerging FedRAMP Cybersecurity Maturity Model certification requirements.
- **Define our 3–5-year digital transformation organizational growth strategy** including cost estimates, new roles & responsibilities (R&R), and process and data governance between our Strategic Capabilities Units (Engineering, Information Technology Services, Process Assurance, IRAD) and each of Ball Aerospace's Strategic Business Units (Tactical Solutions, National Defense and Civil Space).

**SIERRA SPACE, Louisville, CO**

May 2021 – June 2022

*Sierra Space builds Aerospace and Defense technologies that make space affordable and accessible. We are rapidly advancing toward the launch of the next generation of space transportation the Dream Chaser® and space destinations the LIFE habitat.*

**Senior Director of Engineering (Digital Transformation)**

Hired to lead Digital Transformation and Model Based Enterprise (MBE) Strategic Planning and deployment within Sierra Space. Developed and led 3-year (~\$100M) digital transformation road map and Operational Technology (OT) teams aimed at transforming current CAD, PLM, ERP, and MES processes into a comprehensive Digital Thread and Digital Twin Connected Enterprise.

Having developed our comprehensive Digital Transformation roadmap, deployment strategy, return on investment, and budget approvals, we are now aggressively deploying our digital thread and digital twin strategy replacing PTC Windchill with the Siemens Xcelerator Platform. Including Teamcenter on the AWS Cloud, EasyPlan Manufacturing, Opcenter MES, Costpoint to SAP S/4HANA ERP, Teamcenter Requirements, MBSE, and HEEDS-MDAO Design Optimization.

In addition to our Technical Roadmap and deployment strategy, our new Digital Transformation initiatives have accomplished:

- **Stakeholder Management & Alignment** including buy-in on our Top 10 Compelling Problems that our Sierra Space businesses sectors need to solve with Digital Transformation to achieve a competitive advantage.
- **End User buy-in** by Engineering, Manufacturing & Supply Chain SMEs on the features and functions that our new Digital Transformation Platform must provide to enable next-generation business processes and minimize existing pain points.
- **Comprehensive Windchill to Teamcenter migration strategy** including the completion of our PLM Lean Six Sigma Analysis designed to identify and mitigate technology pain points to maximize the value of both PLM investments.
- **Rapid Production Deployment** of Teamcenter (PLM) and Opcenter (MES) from scratch to production in 5 months.
- **Organizational Change Management** practices that promote Continual Improvement and Deployment (CI/CD) and ensure the embracement of our new digital technology strategies and process improvements by the entire organization.
- **Promoted** to include leadership of our Corporate Engineering Support and PLM to ERP Configuration Management Teams.

#### LOCKHEED MARTIN SPACE, Littleton, CO

June 2019 to July 2020

*Lockheed Martin is a global security & aerospace company that employs approximately 105,000 people worldwide. Principally engaged in research, design, development, manufacture & integration of advanced technology systems, products & services.*

#### **Chief Engineer LM Space Intelligent Factory (IIoT) – LM Corporate Principal Investigator**

Hired to provide technical, architectural, and deployment leadership for LM Space Operation's digital transformation into the Industrial Internet (IIoT). In the areas of the Smart Connected Factory (Condition Based Monitoring, Machine Utilization, Predictive Analytics), VR & AR Shop Floor Visualization, Shop Floor Optimization, 3D Design-driven Work Instructions, and Paperless Factory.

- **Established methods for identifying the Top 20 high-value Space Operations** use cases and matched those requirements to proven Digital Transformation technology to ensure rapid operational deployment and return on investment.
- **Developed Production Minimal Viable Product (PMVP) methodologies and acceptance procedures** which ensure that development groups provide promised functionality that achieves production value embraced by the operational end users.
- **Helped create an Integrated Implementation Plan** that leverages the successful PMVP deployment into a scalable digital transformation through coordinated Business Process Re-engineering, Change Management, and Communications.
- **Promoted to Corporate Principal Investigator** for Advanced Visualization across all LM Businesses (Aero, RMS, MFC, Space).

#### ACCENTURE, Denver, CO

Sept 2018 thru Nov 2018

#### **Senior Manager Industry X.0 Digital – Aerospace and Defense**

Hired to define Accenture's Digital Industry X.0, Go to Market (GTM) Strategy in the areas of the Digital Thread, Digital Twin, and Digital Manufacturing (Industrial Internet, Industry 4.0) for the Aerospace and Defense Industry Vertical.

#### HCL TECHNOLOGIES, Troy, MI

Sept 2017 thru Feb 2018

#### **VP Mainstream Model Based Enterprise (MBD/MBE) and Digital Thread & Digital Twin Transformation**

Hired to define the Digital Thread & Digital Twin business and GTM strategy and set of business practices that unite HCL's Engineering, PLM, Manufacturing, and IIoT business units.

- **This business and GTM strategy yield a 3-yr proforma of \$500M+** in new services and software revenue and a 50% market share in the newly emerging Digital Thread and Digital Twin services market.

#### GE OIL & GAS, Houston TX

Jan 2017 thru June 2017

#### **CIO – Digital Engineering (Model Based Enterprise, Digital Thread & Twin) Transformation Leader**

Recruited to accelerate the transformation of the combined GE Oil & Gas & Baker Hughes company from an Industrial Company to a Digital Industrial Company by defining and deploying a Global PLM driven Model Based Enterprise Strategy (MBE) that integrates Engineering, Manufacturing, Supply Chain, Field Services into a Digital Thread through a common Model Based Definition (MBD).

- **Defined and Evangelized a Global Common PLM driven MBD & MBE Engineering Strategy** for our Engineering and Manufacturing Operations which projected a 40% improvement in Engineering Cycle times and a 20% reduction in

Engineering Change Requests **yielding \$200M+ in Engineering & Manufacturing Productivity** gains from a \$50M technology investment.

- **Managed and coordinated the activities of 12 Director-level reports**, 100+ GE employees, and 300+ Engineering Services PLM Integration and R&D contractors. Responsible for a \$42 million annual Digital Engineering budget.

#### **ANARK CORPORATION**, Boulder, CO

2008 to 2015

*Startup software company that pioneered the technology foundation for what is now becoming the Digital Thread, Digital Twin, and Industrial Internet backbone within discrete part and build-to-order manufacturing industries.*

#### **Executive Vice President of Commercial Operations & Software Business Development**

Hired to transform the corporate culture and grow the organization into a leading digital industrial company, I delivered Model Based Enterprise (MBE) Solutions to the Connected Factory. Delivering 3D digital engineering, automated manufacturing, and supply channel efficiencies.

- **Signed multimillion-dollar agreements** with GE, Boeing, Honeywell, Raytheon, US Air Force, US Navy, and US Army by evangelizing outcome-based business value propositions.
- **Positioned Anark to become an MBE, Industrial Internet leader within aerospace, defense, power, and water markets.** Identified key market verticals, closed major contracts, and integrated systems to accelerate success; designed GTM plan.
- **Increased CAGR in revenues by 50% year-over-year (YOY).** Aggressively grew direct sales, channel sales, and system integration partnership activities, and signed contracts with Dassault Systems, Autodesk, and Geometric Ltd.

#### **DASSAULT SYSTEMS (SOLIDWORKS DIVISION)**, Concord, MA

2003 to 2008

*World's #1 provider of 3D engineering design and simulation software. Company generated \$3 billion in annual revenue for developing 3D design, 3D digital mockup, 3D printing, and product lifecycle management (PLM) software solutions.*

#### **VP Software R&D and Product Development**

Onboarded to transform single-product 3D CAD business into a world-class, customer-focused portfolio of digital products. Refocused business towards discrete part design and built-to-order manufacturing markets. Spearheaded voice-of-the-customer initiatives, agile software development, and customer engagements. Improved collaboration, respect, and trust between cross-functional business units. Managed and optimized the performance of 12 VP/Director level reports and 330+ employees located in 9 offices across 6 countries. Controlled \$45 million annual budget.

- **Grew customer base by 60%, bringing it to 80,000 clients, and expanded user base by 150%**, bringing it to 625,000 production users. Greatly increased customer adoption, satisfaction, and retention while strengthening global product delivery.
- **Captured 70% of the market share to dominate the industry.** Spurred the creation of the world's most popular engineering and manufacturing suite of products, responsible for annual revenues of \$700 million.
- **Boosted revenue from \$160 million to \$400 million with a CAGR of 25%** by adding 7 applications to the product portfolio, opening new services, and optimizing revenue streams through mergers, acquisitions (M&A), and internal development.

### **Past Software Startup Company Successes**

#### **FOUNDER OF XYGENT CORPORATION ACQUIRED BY HEXAGON METROLOGY**

*A software spinoff from Brown & Sharpe Metrology in Kingston RI. Acquired by Sweden-based Hexagon AG a \$3 billion global technology group focused on Digital Transformation, precision measuring technologies, and embedded shop floor sensors.*

#### **Founder and VP of Software Product Development at Xygent**

Hired to reorganize, culturally align, and set new product vision for 5 global software development groups within Brown and Sharpe Corporation; turned disparate/competing organizations located in Germany, France, Italy, the United States, and the United Kingdom into a world-class software operation. Managed 7 VP/Director level reports located in 5 countries. Expanded products, services, and revenues by transforming the company into a digital-industrial organization.

***The success of the new global software operation led to the formation of an independent software spin-off (Xygent) which was acquired by Hexagon AG.***

**FOUNDER OF VALISYS CORPORATION ACQUIRED BY SIEMENS PLM**

*A software spinoff from FMC Corporation a Military and Defense Contractor. Acquired by Siemens PLM a Digital Transformation company and makers of NX-CAD, Teamcenter PLM, and other software technologies.*

**Founder and VP of Software Development and Engineering at Valisys**

Hired by FMC's Central Engineering Laboratories to advance the deployment of 3D CAD technologies throughout FMC's global engineering organizations. Invented and patented (US Patent #4,918,627) new digital transformation technology for using 3D CAD and digitalized GD&T Tolerances to automatically control manufacturing (NC machine tools) and inspection equipment (CMMs).

***Internal success of this new technology led to the formation of Valisys Corporation which was acquired by Siemens PLM.***

Served as Vice President of Business Development for the Tecnomatix division. Supervised 5 senior managers and 75 indirect reports. Successfully introduced real-time machine tool controls driven by 3D engineering, PLM, and MES data analysis to automotive, aerospace, and medical device industries.

**Education & Professional Development**

- **U.C. Berkeley Haas School of Business, Executive MBA: Artificial Intelligence Bus. Strategies & Appl**, Berkeley, CA
  - Graduate
- **MIT SLOAN SCHOOL of MANAGEMENT, Leadership of Innovative Organizations**, Cambridge, MA
- **Master of Business Administration (MBA) – Focus: Big Data & Statistical Analytics**, Santa Clara University, Santa Clara
  - 3.7/4.0 GPA | Summa cum Laude | Top 5% of all Graduates
- **Bachelor of Science – Computer Science / Mechanical Engineering**, SAN JOSE UNIVERSITY, San Jose, CA
  - Dual Degree | 3.7/4.0 GPA | Graduated with Great Distinction | Top 5% of Engineering Graduates
- **Digital Transformation Leadership**, Mastering Python for Data Science, AI & Machine Learning, Agile Project Manager
- **Six Sigma Black Belt Training**

**Thought Leadership**

- Guest Speaker and Author: Produced hundreds of webinars, speeches, articles, and white papers.
- US Patent #4,918,627 – Automated design, manufacturing, and inspection processes based on Model Based Definition (MBD/MBE).
- US Patent #7,590,497 – Automatic generation of Engineering tolerance schemes that conform to GD&T best practices (MBD/MBE).
- Certified Public Speaker (Toast Master) and Student of Dale Carnegie, Zig Ziegler & Alex Karrass, and Geoffrey Moore.
- Certified SolidWorks 3D CAD Professional (CSWP) – SolidWorks Reseller Application Engineering Certification Test.
- Published several papers on Model Based Enterprise, Digital Thread, and Digital Twin Deployment Strategies

**Technical Summary**

- **Software Development:** Python, C, VBA, JavaScript, HTML, XML, JSON, OOD, Agile-Scrum, Rational Unified Process (RUP)
- **AI/ML:** LinkedIn AI Academy, Understanding Large Language Models (LLMs), AI & Connected IIoT, Building ChatGPT Plugins
- **Platforms:** SQL, NoSQL, Hadoop, Minitab, SPSS, Jupyter Notebook, Bubble.io, Visual Studio, OPC, Adobe 3D PDF
- **Computer-Aided Design (CAD):** SolidWorks, CATIA, NX, PTC Creo-Pro/E, Autodesk Inventor, AutoCAD, SpaceClaim, Onshape
- **Product Lifecycle Management (PLM):** Siemens Teamcenter, Dassault Enovia, PTC Windchill
- **Additional:** Manufacturing Execution Systems, Process Planning, Real-Time M2M Communications/Controls OPC & SCADA.