

EMAN BAYANI, CSWP, CSWPA-DT

Sr. MECHANICAL/DESIGN/FEA ENGINEER

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PROFILE

To obtain a permanent or contract position as a senior mechanical or senior design engineer with special interest in design, development, and analysis using SolidWorks®, SolidWorks® Simulation®, and SolidWorks® Flow Simulation®.

EDUCATION

University of California, Irvine - Bachelor of Science in Mechanical Engineering, June 1997.

COMPUTER SKILLS

Packages: Windows®, Microsoft Office® products

SolidWorks®: 97plus/98/98plus/99/2000/2001/2001plus/2003/2004/2005/2006/2008/2009/2010/2011/2013/2015

COSMOSWorks®: 97/97plus/98/99/2001/2005/2006

SolidWorks® Simulation®: 2008/2009

SolidWorks® Animator: 2005

SolidWorks® Flow Simulation®: 2008/2009/2010.

COMPUTER EXPOSURE

AutoCAD® 14, DraftSoft®, PDM Works®, CF Design® 8.0 & 9.0, SMARTTEAM® 2005/2006, SolidWorks Simulation® 2010, SolidWorks Flow Simulation® 2011, SolidWorks Routing® 2013, SolidWorks Enterprise PDM® 2013, Siemens® Teamcenter PLM, Agile®, FloWorks®, Autodesk® Inventor®, and ANSYS®.

PATENTS

U.S. Patent #6,460,954, 6,145,944, CN 00800316 (China patent)

Inventor of plastic detent bumpers for ball bearing drawer slides. Hold patents in United States, Europe, Taiwan, and Mexico through former employer Accuride International.

U.S. Patent #9,930,248, WO/2017/087568 (World Patent), and JP2018545124A (Japan patent)

Inventor of a digital image capturing device system and method that gives users the interface to adjust faces, scenes, or any recognized object in a image capturing device. 7 patent citations and cited by 3.

TRADEMARKS

U.S. Trademark Reg. No. 4,877,923

Registered owner of trademark/service mark Buytwits. A trademark for online Twitter® services for users and merchants to exchange goods.

U.S. Trademark Reg. No. 5,449,589

Registered owner of trademark/service mark ParaShuttle. A trademark for handicapped transportation .

U.S. Trademark Reg. No. 5,525,965

Registered owner of trademark/service mark Pixo. A trademark for a Cryptocurrency.

PROJECTS

PIXO (Chicago, IL) Oct 2017 – Present

Managing member

A digital asset using cryptography with a digital ledger.

PARASHUTTLE (Chicago, IL) Feb 2017 – Present

Managing member

App for handicapped transportation.

BUYTWITS (Chicago, IL) Apr 2013 – Present

Managing member

Online Social networking site for exchange of ideas for buying computers, electronics, Cellphones, Video Games, gear, and finding special offers, deals, and bargains.

WORK EXPERIENCE

ABBOTT LABORATORIES (Irving, TX) – December 2013 – May 2014

SolidWorks® Design Engineer (Contract)

Preparation of detail part drawings of a blood Analyzer.

Design and detail of cables using SolidWorks Routing®.

Design of sheet metal components.

Enterprise PDM and Team Center PLM File management.

WOODWARD MPC (Skokie, IL) May 2013 – October 2013

Senior Engineer (Contract)

Motor research for optimized costing for production.

Preparation of geometric dimensioning and tolerancing (GD&T) part drawings for Bombardier rudder pedal system using AutoCAD®.

FEA analysis using ANSYS for G loading.

Learned basic AutoDesk® Inventor®.

SIERRA NEVADA CORPORATION (Hagerstown, MD) September 2012 – January 2013

SolidWorks® Design Engineer (Contract)

Design of aft section of a Hawker Beechcraft Army plane for antenna installation.

Preparation of installation, detail, and assembly drawings for different components and assemblies on Beechcraft plane.

L3 SPD ELECTRICAL SYSTEMS (Philadelphia, PA) October 2011 – December 2011

SolidWorks®/Flow Simulation® Senior Mechanical Engineer (Short term Contract)

Upgrade of design of an existing electronic enclosure for Navy power/protection system.

Flow analysis (CFD) of enclosure and internal printed circuit boards.

Design and detail of parts and sub-assemblies for manufacturing.

SOTERA DEFENSE SOLUTIONS (Frederick, MD) April 2011 – June 2011

SolidWorks® CAD Technician (Short term Contract)

Creation of exploded views for military documentation.

Parts and assembly design for large circuit breaker electronic enclosure.

VIASAT INC. (Germantown, MD) March 2009 – October 2009

SolidWorks®/Simulation®/Flow Simulation® Senior Mechanical Engineer (Long-term Contract)

Design and development of a Convection/Conduction electronics enclosure.

Extensive CFD analysis on fin design (convection) and internal enclosure (conduction).

FEA analysis for enclosure supports.

PDM works file management.
Documentation for castings and machining.

DRS TECHNOLOGIES (Herndon, VA) November 2008 – January 2009

SolidWorks® Mechanical Engineer (Short term Contract)

Analysis design of ISO-container packaging of U.S. Military JLENS project cables.
Design of reel systems for cable management and transportation.
Volume analysis of numerous different configurations of ISO-containers.

BP SOLAR (Frederick, MD) June 2008 – October 2008

SolidWorks®/COSMOSWorks Design Engineer (Short term Contract)

FEA design and development of solar panel tracking system.
COSMOSWorks® analysis for multiple scenarios of wind loads, gravity, and system loads.
Spreadsheet and hand calculations for verification of FEA data.
Concept creation from hand sketches to full working FEA assemblies.

ROCKWELL COLLINS (Sterling, VA) June 2007 – June 2008

SolidWorks® Senior Design Engineer (Long-term Contract)

Design and detail of different sections of two different U.S. Military helicopter training simulators (MH-60R and MH-60S).
Complex shaped sheet metal design and modification of MH-60S extended wing system and fairings.
Design and detail of MH-60S tow point assembly.
SMARTEAM® 2005 file management.
Design using MIL-standard specifications and components.

SWIFT ENGINEERING (San Clemente, CA) February 2007 – June 2007

SolidWorks® Mechanical Design Engineer (Short term Consulting/Contract)

Assist in the design of aircraft jet engine mount components and assembly.
Complex exotic surface modifications of components.
2D-drawings of designed aircraft parts and assemblies.
Creation of Complex installation exploded drawings.
PDMWorks® file management.
Site address: <http://www.eclipseconceptjet.com/>

AP LABS (San Diego, CA) March 2006 – January 2007

SolidWorks® Mechanical/Design Engineer (Permanent)

New product redesign and development of aerospace enclosure (electronic packaging) rack system.
CFD analysis (CF Design® 8.0 & 9.0) of different enclosures (electronic packaging).
ECO, document maintenance, 2D drawings creation, and SMARTEAM®.
Vibration modal and FEA (COSMOSWorks® 05/06) analysis per MIL-spec standards.

SENIOR JET PRODUCTS (San Diego, CA) February 2006 – March 2006

CATIA®/SolidWorks® Mechanical Design Application Engineer (Short term Contract)

Tooling design for ring welding machines.
Assist with import and export of CATIA® files.
Manufacturing and tooling support using CATIA®.
Staff engineering support using SolidWorks® and CATIA®.

SEASPACE CORPORATION (San Diego, CA) May 2004 – January 2006

SolidWorks® Mechanical/Design Product Engineer (Permanent)

Design and development of antenna pedestal systems.
Finite element analysis of parts and assemblies.
Hand calculations for a variety of projects.
Creations of animations for proposals and demonstrations.
Maintaining large assemblies.

SCHOLLE PACKAGING (Irvine, CA) March 2004 – May 2004

SolidWorks®/AutoCAD Mechanical Design Engineer (Short term Contract)

Design and development of industrial wine filler machines.
Performing ECO's and ECR's using AutoCAD®14 and SolidWorks® 2004.
Reverse engineering of wine filler subsystems.
Creating parts and assemblies using manufactured and OEM parts.
Production of bill of material for subsystems.

SAF-T-FLO (Placentia, CA) August 2003 – January 2004

SolidWorks® Mechanical Design Engineer (Consulting)

Working on chemical injection units used for main city water pipes.

Concept modeling of parts and assemblies using SolidWorks®2003.

Reverse engineering of existing valve and injection products.

Performing engineering pipe pressure calculations.

Fabrication of engineering drawings for custom injection units.

SES BRANDS (Commerce, CA) January 2003 - August 2003

SolidWorks® Mechanical Design Engineer (Permanent)

Design and development of industrial refrigeration (HVAC) rack systems used by major food chain Companies like BJ's Pizza®.

Reverses engineering.

2D AutoCAD®2000 and SolidWorks®2003 drawings of manufactured parts.

Multi-part assembly design.

Interactions with manufacturing personnel.

HARTWELL CORPORATION (Placentia, CA) December 2002 - January 2003

SolidWorks® Mechanical Design Engineer (Short term Contract)

Reverse engineering, part and assembly modeling of airplane door latches.

Production of assembly and part drawings.

Production of SolidWorks® part files from IGES Files.

RAINBIRD CORPORATION (Azusa, CA) April 2002 - November 2002

SolidWorks® Mechanical Design Engineer (Long-term Contract)

Redesign and development of plastic sprinkler nozzle (SolidWorks®2001/2001plus).

Vendor interactions, part and assembly prototyping.

Assist project team members with milestones and goals.

CFD and FEA testing of prototype parts.

ORMOND INC (Santa Fe Springs, CA) November 2001 - July 2002

SolidWorks® Mechanical Design Engineer (Long-term Contract)

Design and development of weight calibration systems used for aerospace and commercial aircrafts.

Creating and maintaining large assemblies.

Preparation of engineering drawings for production and development.

FEA of high stress parts and assemblies.

PHOGENICS IMAGING (Rancho Bernardo, CA) May 2001 - June 2001

SolidWorks® Mechanical Design Engineer (Short term Contract)

Design engineering (SolidWorks®2001) of a subsystem called the "conveyor " for a new breed of a high quality photo developing printer.

Assist manufacturing team in design of rotating plastic components used for the conveyor system.

Assist in Industrial design of multiple variations of exterior covers adjoining the conveyor.

STAR TRAC BY UNISEN (Irvine, CA) July 2000 - January 2001

SolidWorks® Mechanical Design Engineer (Long-term Contract)

Design and Development of a new line of exercise equipment called the "Thruster".

New product management from concept to production.

Creation of multiple parts and large assemblies (SolidWorks®2000).

Design and stress analysis of welded frames.

Creating Detailing drawings for manufacturing and Prototyping.

Performing ECO's and ECR's.

Design of a Treadmill impact testing machine using a rotating cam assembly.

MEDSTONE INTERNATIONAL INC. (Aliso Viejo, CA) August 1999 - January 2000

SolidWorks® Design Engineer (Long-term Contract)

Assembly and component design (SolidWorks®99) of an X-ray imaging machine called the "U-Arm".

Maintaining and modifying an STS-T Lithotripter bed assembly.

Reverse 3D engineering.

Prototyping of designed components by machining and forming.

Preparation of detailing and exploded drawings for design reviews and manufacturing.

Design and development of a water filtration system piping.
Solenoid and valve research and design.
Design and prototyping of sound reduction components.

ACCURIDE INTERNATIONAL INC (Santa Fe Springs, CA) December 1997 - April 1999

SolidWorks®/AutoCAD Research & Development Design Engineer (Permanent)

Product design and development of new concepts using SolidWorks®97/97 plus& 98.

Finite element stress analysis of concepts and prototypes using COSMOSWorks.

Project leader for a new ergonomics product line

Plastic parts design for molding.

Material research and analysis.

Vendor interactions and survey.

Production of CAD detailing and exploded drawings for tooling and manufacturing.

Interface with marketing and manufacturing.

Interaction with CNC programmers and machine shop.

OTHER

Certified SolidWorks® Professional-Advanced Drawing Tools (Certificate ID: C-YPQXPD8NKF), September 1, 2015.

Certified SolidWorks® Professional (Certificate ID: C-H8B2XFMZ59), August 27, 2015.

Certified SolidWorks® Associate (Certificate ID: C-EXL9PLS62C), May 4, 2015.

Certified SolidWorks® Training, March 12, 1998.

Certified CF Design® 8.0 training.

ISO 9001 Quality Systems Internal Audits Training, October 1998.

Engineering degree from accredited university.

Strong 3D modeling (approximately 23,000+ hours of SolidWorks®).

Experience in finite element analysis and computational fluid dynamics.

Willing to travel.

Willing to work on contracts.

U.S. Citizen.

Eligible for security clearance.

REFERENCES

Available upon request.