**Hector Uscanga**

**408-691-2967**

**h.uscanga88@gmail.com**

**Objective:**

To obtain a high-level Staff Designer position with an emphasis on both mechanical and electrical engineering.

**Education:**

Associate's Degree in CADD – May 2012

(Computer Aided Design and Drafting for Engineering)

Southwestern College, Chula Vista, California

**Skills:**

* 20+ Years of ProE/Creo experience.
* 15+ Years of NX experience.
* 20+ Years of SolidWorks experience.
* 20+ years of GD&T experience.
* 18+ years of Windchill and Agile PLM
* 18+ years of using different metals, plastics, composites for prototype to production parts.

**Professional Experience:**

**Client: Lockheed Martin, San Jose California Jan 2025 - June 2025**

**Role: Mechanical Design Engineer**

**Responsibilities:**

* Responsible for CAD data via CREO to Windchill.
* Responsible for getting models and drawings ready for DFM/DFA analysis.
* Owned all models and drawings related to my teams efforts to deliver concept prototypes to production released models and drawings.
* Responsible for prototype builds and CAD fitment analyses.
* Responsible for all engineering changes (CREO to Windchill).
* Responsible for GD&T tolerance stack up analysis or vector loop analysis.
* Followed all required standards for verification and validation on all released CTs (Engineering releases) and all drawings and models being released.

**Client: Carrier (HVAC Design), San Jose California June 2023 - December 2024**

**Role: Mechanical Design Engineer**

**Responsibilities:**

* Responsible for my team's CAD data via NX to TeamCenter.
* Owned all models and drawings related to my team’s efforts to deliver concept prototypes to production released models and drawings.
* Responsible for getting models and drawings ready for DFM/DFA analysis.
* Responsible for prototype builds and CAD fitment analyses.
* Responsible for all my teams engineering changes (NX to TeamCenter).
* Worked with suppliers to procure piping designs, piping assemblies, and sheetmetal designs.
* Responsible of engineering changes and initial releases.
* Responsible of being part of peer reviews for new designs, ECs, drafting and BOMs for large assemblies.
* Worked as a team leader to support other designers with CAD, PLM and PDM work.

**Client: JNJ MedTech (Robotics R&D), San Jose California October 2020 – May 2023**

**Role: Sr. Designer in Mechanical Engineering**

**Responsibilities:**

* Responsible for my team's CAD data that is moved into our PLM, PDM and NX.
* Responsible for getting models and drawings ready for DFM/DFA analysis.
* Responsible for helping team to identify and analyze features for any tolerance stack ups.
* Responsible for prototype builds and CAD fitment analyses.
* Responsible for all my teams engineering changes (PDM to PLM).
* Worked with suppliers to solve or facilitate DFM issues as needed.
* Worked on preparing models for FEA analysis, depending on what was needed at the time of study.
* Worked with the production of injection molded parts as well as helped solve issues with supplier’s analysis of tooling for production with complex geometry for injection molded parts.
* Worked with suppliers to procure 3D-printed parts and CNC machined parts for production and prototypes.
* Owned all models and drawings related to my teams efforts to deliver concept prototypes to production released models and drawings.
* Worked as a team leader to support other designers with CAD, PLM and PDM work.
* Helped to establish standards for the team. (PLM, PDM, traceability of ECO, and Jira)
* Worked with manufacturer’s CAD team to transfer models and drawings from NX to SolidWorks.

**Client: Lawrence Berkeley National Laboratory, Berkeley California July 2022 – July 2023**

**Role: Professional Designer**

**Responsibilities:**

* Apply technical expertise and knowledge of basic engineering/scientific concepts and practices to provide multifunctional mechanical engineering designs and drawings following LBL’s standards.
* Originated mechanical engineering design concept to production following LBL’s standards.
* Worked with team to release COTS parts and implemented them into LBL’s PLM (windchill) library for future use.
* Worked with engineer to release design drawings and models into LBL’s PLM (windchill) library.
* Appropriately maintained CAD data for all models per LBL’s standards.
* Worked with engineering team to design and manufacture sheet metal parts, CNC machined parts, welded parts and stamped parts.
* As a senior designer, provided CAD guidance and peer review drawings for others in my engineering team for support.
* Most recent software used were Creo 8, AutoCad, Solidworks.

**Client: AVDG, San Jose California (Furloughed due to Covid-19) July 2018 – July 22 2020**

**Role: CAD Design Engineering**

**Responsibilities:**

* Oversee CAD design blocks for future use in the Audio and Visual integration.
* Utilizing 3D printer for new innovative parts for the AV industry.
* Updating as-build cad drawing sets as requested by project engineers.
* Completing new drawing sets (facilities and electrical plans) for various projects accordingly.
* Completing new electrical schematic drawings (functionals and rack elevations).
* Utilized AutoCad, Revit, Bluebeam and CATIA to finalize Drawing sets and ME drawings for 3D rapid prototype printing.

**Client: VARIAN, Palo Alto California (Furloughed Due to Covid-19) February 2019 – June 12 2020**

**Role: Sr. CAD Designer**

**Responsibilities:**

* Oversee CAD design labels.
* Create Engineering changes per regulatory requirements.
* Complete Engineering changes per ECNs.
* Work with manufacturing on releasing new labels for medical devices.
* Release via SAP new design labels and documents per new medical devices.
* Oversee ECNs and ECs workflow via SAP.

**Client: LAM Research, Fremont California December 2017 – June 2018**

**Role: Sr. Drafter/Designer**

**Responsibilities:**

* Worked on all initial releases. From drafting to releasing documentation in the system called Team center that links NX CAD software to SAP (Library for CAD work). This includes drafting new mechanical models and creating new BOM (bill of materials) for these complex assemblies.
* Design and fabrication oversight of multiple concurrent developmental efforts.
* Worked on ECR’s (engineering change request) that included changes in complex assemblies, CAD models, and 2D drawings.
* Helped designers and drafters with all Creo/ProE drawing and model questions because of my background with this software.
* Used correct GD&T in accordance with ASME Y14.5-2009 standards for all drafting work.

**Client: General Atomics – Aeronautical Systems Inc., Poway California June 2012 – November 2017**

**Role: Designer – Liaison Mechanical Engineering**

**Responsibilities:**

* At the start of my career in GA, I had the opportunity to work in design projects that involved sheet metal, pipping, composites for the surface of certain aircraft's, complex assemblies, and some help with certain low voltage electrical drafting.
* Worked with the composite engineering team on surfacing exterior design for the UAV’s panels.
* Throughout the years in GA I have used varies software that include 5 years of Creo Parametric, around 3 years of NX and 3 years of SolidWorks.
* Helped the electrical designers with all red lines and some Creo routing in the models for the ground control equipment.
* Worked on new designs with varies groups in the company; have created new models, worked on new designs, have completed new complex assemblies and drafted many drawings to create a complete workable part.
* Follow instructions for special projects and meet deadlines accordantly with little to no supervision.
* Documented all EC’s (Engineering Changes) per GA standards.
* Documented, per GA standards, all initial released drawings per ASME Y14.5-2009 standards.
* Properly documented and prepared specifications for assemblies that needed new parts and were not in the Windchill system to take proper steps in integrating these parts into the assembly via Creo Parametric.
* Prepared and documented BOMs for complex assemblies via Windchill and Creo Parametric.
* Prepared and correct my own designs utilizing common geometrical mathematics and manufacturing reasoning.
* Had the opportunity to work with other groups like ground control equipment, propulsions, electrical engineers, and new groups in the company like FCCB.
* FCCB is a group that expedites engineering changes and I was the designer in charge. Also, I was the liaison for all questions regarding ECR’s and EC’s PLM’s (Product Lifecycle Management) for Windchill, as well as, troubleshooting any complex assemblies within Creo Parametric.

**Client: Medival Fab, Chula Vista California Jan 2006– Jan 2010**

**Role: Designer/Drafter**

**Responsibilities:**

* Worked in a small shop helping design parts for off road trucks using PorE, AutoCad and SolidWorks.
* In charge of all designs and drafting, also dealt with all communications with vendors wile parts were being cut via plasma or water jet.
* Communicated proper GD&T, via blue print, to sheet metal shops (vendors) to have a good and workable part in a timely manner.
* Customized rails for off road trucks.

**Client: Pacific Maritime Industry, Chula Vista California Jan 2004– March 2006**

**Role: Shipping and Receiving Supervisor/Some Drafting/Sheet Metal Work**

**Responsibilities:**

* Responsible for dealing with vendors for the last step of the parts process. This included powder coating, zincking, electro polishing, chem filming, anodizing, etc.
* Provided daily information on parts delivered, and on parts that needed to be out by certain dates.
* Started by peming, grinding, polishing, spot welding, hot pressing panels, assembling, and learned the various processes a part would have to go through to be a complete functional part.
* Learned and helped how to use CAD software to unbend sheet metal via ProE and SolidWorks.
* Got introduced to GD&T and used it to identify the bad and good parts.