

Demos Backos

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🇺🇸 U.S. Citizen

MECHANICAL ENGINEER

Solution-oriented leader with a background in mechanical engineering, specializing in product design, manufacturing, and regulatory compliance for medical devices. Proficient in utilizing tools and technologies such as SolidWorks, AutoCAD, FUSION 360, PTC Creo, and 3D Printing to design and develop innovative solutions. Experienced in leading teams, ensuring quality assurance, and continuous process improvement.

- Mechanical Engineering
- Team Leadership
- Quality Assurance
- Product Design & Manufacturing
- Tooling Design Support
- Regulatory Compliance
- Procedure Development
- 3D Printing
- Continuous Process Improvement

TOOLS & TECHNOLOGY

Engineering Design - CAD, CNC Programming, Endmill/Lathe Machining, Meshmixer, STLs, 3D Printing, Additive Manufacturing, OnePLM Windchill, Design Document Control, Change Control, Polishing

Medical Devices - G.D.P., D.C.S., DIOVV/DIVVL, Risk Tables, ISO / ASTM standards, Design Verification memos, Post Market Surveillance, DICOM Segmentation

PROFESSIONAL EXPERIENCE

Digital Dental Portaits

Elizabeth, NJ

Dental Lab Technician

2023 – Present

Manage medical billing operations, accurately inputting patient data to determine manufacturing requirements. Conduct inspections to verify accuracy and proper fit of dental prosthetics.

- Communicate with doctors to ensure proper design inputs met.
- Streamline the billing process by implementing an effective tracking system of patient data.
- Manage inventory of manufacturing supplies.
- Implement routine quality control checks on prosthetic teeth.
- Improve delivery system ensuring products are completed and sent to doctors in time for patient operation.

Stryker Corporation

Mahwah, NJ

Associate Engineer (Contractor)

2022 – 2023

Collaborated on trials and various instruments for hip implants, taking a comprehensive approach to design control. Thoroughly reviewed documentation to confirm verification documents were in place and up to date with design input and regulatory documents and standards.

- Evaluated and updated design controls documents (DIOVVs) for hip/knee joint implants, trials, and instruments for EU-MDR and EU-MDD projects.
- Created multiple design verification, tolerance analysis, and lifetime assessment documents to ensure alignment with design inputs/outputs.
- Led cross-team design control document updates, collaborating with members from Quality, Operations, Clinical, Marketing, and Regulatory Affairs to ensure regulatory compliance and alignment across functions.

Orthotin LLC and Biocore9 LLC

Whippany, NJ

Project Engineer

2020 – 2022

Designed Patient Matched TMJ implants utilizing DICOM Data, CAD, and 3D Meshes. Collaborated closely with customers and production floor to gather input aimed at streamlining the design and manufacturing processes of TMJ implants.

- Took full ownership of the design and manufacturing of the Humeral implant instrument set.
- Developed and implemented multiple Work Instructions for the design, manufacturing, and quality control of the TMJ implant system, Humeral, and Femoral resurfacing.
- Authored, updated, and executed quality control system procedures.
- Acquired in-depth knowledge and expertise in 3D printing processes, allowing for quality control and product customization.

EDUCATION & COMPETENCIES

Bachelor of Science, Mechanical Engineering - Rutgers University

Stryker UL Solutions Compliance Training - An Introduction to ISO 13485 - The Quality Management System for Medical Devices

Boy Scouts of America - Eagle Scout, Ordeal member of Order of the Arrow