Iain Morgan

San Diego, CA | My Email | LinkedIn Profile

Summary

- Cross-functional engineer with strong experience developing and testing complex electro-mechanical medical devices
- Relocated to San Diego from Colorado and currently looking for early-career engineering roles

Education

MS, Mechanical Engineering | *University of Colorado, Boulder* | GPA: 3.67 — Aug 2021 – May 2023
BS, Mechanical Engineering | *University of Colorado, Boulder* | GPA: 3.61, BME Minor — Aug 2018 – May 2022

Relevant Skills

Software: SolidWorks, Jira, Windchill, SAP, Git, Linux
Manufacturing: 3D Printing(FDM/SLS/SLA), Laser Cutter, DFM, DFA, basic GD&T, Prototype Circuit Boards
Programming: Python, MATLAB, C++, Bash
Medical Device: ISO 13485/14971, Verification and Validation, GDP, Lifecycle Management

Work Experience

R&D Associate Engineer (Level 2) — Apr 2024 – Aug 2024
Terumo Blood and Cell Technologies — *Lakewood, CO*

- Defined and structured 45+ system-level requirements with cross-functional team for new cell therapy device
- Deployed a tested and documented solution within 1 week for an on-market-product software issue for key customer
- Led team of 3 to develop and coordinate phase-based major revision software upgrade for fleet of 86 test devices
- Reduced sustaining costs by > $10k by mapping product dependencies in SAP to sunset 15+ software SKUs
- Provided guidance to younger engineers in Advanced Research on processes for centrifuge rotor and filler balancing

R&D Mechanical Engineer in Development — June 2022 – Apr 2024
Terumo Blood and Cell Technologies — *Lakewood, CO*

- Designed camera assembly for centrifuge in SolidWorks able to withstand 5000 gs using SLS/Polyjet 3D printing
- Modified existing SolidWorks models and created drawings for high-volume manufacturing line tube cutting fixtures
- Increased cell recovery by 30% & reduced operator interaction by 50% in new cell washing system state machine
- Automated workflow for large-scale data analysis of device logs from testing using Pandas-based Python scripts
- Executed verification & validation protocols in BSL2 labs for flagship device and met all required deadlines

Biomedical Engineering Research Assistant — June 2021 – Nov 2021
Ferguson Biomechanics and Biomimetics Lab, University of Colorado, Boulder — *Boulder, CO*

- Captured microCT images of femurs, collected morphometric data, and performed statistical analysis in MATLAB
- Presented poster on initial findings at CU Orthopedic Research Symposium as a Mack Clayton Award finalist
- Published abstract in *Molecular Reproduction and Development* as first author, highlighting key images and results
- Refined methods for imaging and analysis, wrote SOP, ensuring consistency and reproducibility across experiments

Materials Engineering Intern — June 2020 – Aug 2020
Bradshaw International — *Rancho Cucamonga, CA*

- Communicated with 30+ suppliers to gather material data for 1,000+ products for internal sustainability initiatives
- Conducted quality analysis tests on multiple products to ensure corporate standards were being met

Certifications

Associate Systems Engineering Professional (ASEP) | *INCOSE* — May 2025
Mechanical Engineer In Training (EIT) | *California BPELSG* — May 2025
Certified SolidWorks Associate (CSWA) | *Dassault Systemes* — Dec 2019

Projects

Reinfusion Module for Apheresis Device | *Senior Design Project* — Aug 2021 – May 2022

- Translated user needs for project into product requirements that could be used for testing device design
- Developed state-machine for software that controlled system components to complete a therapeutic procedure
- Reduced weight of structural components by 20% through use of FEA (static, linear model) in SolidWorks