

Iain Morgan

San Diego, CA | [My Email](#) | [LinkedIn Profile](#)

SUMMARY

- Cross-functional engineer with strong experience developing and testing medical devices and consumables
- Recently relocated to Southern California from Colorado and looking for early-career engineering roles in San Diego, CA

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: Jira, JAMA, Windchill, SAP, SolidWorks, Git, Linux

Manufacturing: 3D Printing(FDM/SLS/SLA), Laser Cutter, DFM, DFA, Prototype Circuit Boards

Programming: Python, MATLAB, C++

Medical Device: ISO 13485/14971, Verification and Validation, Design Controls, 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
- Increased maintainability of code by 50% for embedded state machine design through design trade-off analysis
- 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

R&D 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
- Increased cell recovery by 30% & reduced operator interaction by 50% in new cell washing system state machine
- Collaborated with Commercial and R&D stakeholders to develop 25+ draft requirements for project based on VOC
- Automated workflow for large-scale data analysis of device logs from testing using Pandas-based Python scripts
- Improved knowledge transfer out of Ideation by creating templates based on Verification Reports, ICDs, & SDDs
- 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

- Imaged & analyzed 30+ murine femurs with microCT to determine effects of *Fshb* genotype on bone microstructures
- 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

Heart Rate Monitor | *Personal Project, In Progress* May 2025 – Present

- Architected end-to-end solution for a heart rate monitor based on ESP32 MCU and Raspberry Pi server for web app
- Selected hardware components and software tech stack based on desired performance, constraints, and cost
- Currently working on embedded programming for ESP32 MCU and MAX30102 sensor in C using freeRTOS