Iain Morgan

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Summary

- Cross-functional engineer with strong experience developing and testing complex electro-mechanical medical devices
- 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

Aug 2021 - May 2023

BS, Mechanical Engineering | University of Colorado, Boulder | BME Minor

Aug 2018 - May 2022

Relevant Skills

Software: Jira, DragonFly, Git, embedded Linux, SolidWorks

Programming: Python, MATLAB, C++, Bash

Miscellaneous: Zeiss microCT, Prototype Circuit Boards, Good Documentation Practice, ISO 13485

Work Experience

Associate Software Engineer

Apr 2024 - Aug 2024

Terumo Blood and Cell Technologies

Lakewood, CO

- Resolved software field issue, delivering tested and documented solution which maintained key customer relation
- Troubleshot system-level issues during testing by analyzing device logs and reviewing embedded software code base
- Led small team to develop and coordinate major revision software upgrade for large internal fleet of test devices
- Defined and structured system-level requirements with cross-functional team for new benchtop cell therapy device

R&D Advanced Research Engineer in Development

June 2022 – Apr 2024

Terumo Blood and Cell Technologies

Lakewood, CO

- Automated and tested new procedures for apheresis device by designing and integrating new hardware and software
- Executed verification & validation protocols for flagship device, met all deadlines and regulatory requirements
- Created Python scripts to parse and analyze device logs, providing supporting data and figures for project decisions
- Designed wireless camera system assembly for centrifuge, using COTS WIFI-based camera and custom circuit board
- Presented results from feasibility work to R&D leadership using data to show prototypes met functional requirements

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

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

Bradshaw International

Associate Systems Engineering Professional (ASEP) | INCOSE

May 2025 May 2025

Mechanical Engineer In Training (EIT) | California BPELSG Certified SolidWorks Associate (CSWA) | Dassault Systemes

Dec 2019

Projects

Smart Picture Frame | Personal Project

 $Oct\ 2024 - Jan\ 2025$

- Reverse-engineered an existing smart frame to define key functional requirements for a custom design
- Developed a Python-based slideshow program using OpenCV & Pillow with lazy-loading for memory efficiency
- Integrated Raspberry Pi server with custom monitoring script to wirelessly transfer new images from phone to frame
- Implemented robust logging throughout programs to track activity and errors for rapid debugging capabilities