

Zack Wood

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EDUCATION

University of Southern California

B.S. in Mechanical Engineering, Cum Laude

Los Angeles, CA

May 2016

TECHNICAL SKILLS

- Programming languages: Python, MATLAB
- Software tools: Solidworks, Minitab, Solid Edge, LabVIEW, AutoCAD, Microsoft Office
- Translation of complex technical concepts and data into digestible formats

WORK EXPERIENCE

Ra Medical Systems, Inc

Carlsbad, CA

R&D Engineer, Engineering Department

July 2018-Present

- Led development of new distal tip design for commercial device, increasing visibility of product
- Worked with manufacturing and quality to troubleshoot critical to quality manufacturing processes after drift during production and create safeguards to prevent future process drift.
- Led introduction of new risk analysis, statistics, and validation SOPs bringing company to compliance with ISO 13485, ISO 14971, and industry standards.
- Worked with marketing and sales to develop technical training modules for flagship product

R&D Engineer, New Product Development

July 2016-July 2018

- Supported 510(K) application for excimer laser debulking catheters by managing design validation testing such as mechanical testing and functionality testing.
- Worked with lead technician to develop manufacturing processes during pilot production.
 - Developed solvent cast thin film deposition process, bringing yield from ~20% to ~80% and increased batch size from 10 catheters to 72 catheters.
- Developed prototypes for next generation catheters to improve usability and utility.

Johnson and Johnson

Irwindale, CA

Process Engineer, Advanced Process Technology

November 2015-June 2016

- Redesigned catheter electrical test method by creating new test fixture and workflow.
- Assisted in validation of automated ovens by characterizing ovens with temperature mapping to establish operational limit of ovens for polyurethane curing process.
- Developed parameters for reflow process for catheter tip, increasing tip stiffness consistency.

Abbott Laboratories

Lake County, IL

Engineering Intern, Global Engineering Services

May 2015-August 2015

- Designed mechanical systems and collaborated with contractors and construction services to ensure projects were completed on time and under budget.
- Led a global team to develop a new energy efficiency standard for all Abbott facilities and utilities, helping the company to reduce operating costs as well as environmental footprint.
 - Won Abbott Silver Excellence Award for surpassing performance expectations.
- Implemented safety measures in a diagnostics research and development incubator, mitigating the risk of health problems to scientists while maintaining incubator integrity.
 - Identified and fixed gap in asphyxiating gas standard to prevent similar situations.

PERSONAL/ACADEMIC PROJECTS

Floorplan Mapping Robot

- Creating autonomous floor mapping robot using microcontrollers, ultrasonic sensors, and open source hardware and software architecture.

Irrigation Control System, Senior Design Project

- Collaborated with team to design, fabricate, and calibrate sensors to determine soil moisture.
- Performed experiments to characterize the behavior of moisture flowing through soil.

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 <https://www.linkedin.com/in/zack-wood-22065a91/>