**Ryan M. Kissinger**

[r.kissinger68@gmail.com](mailto:r.kissinger68@gmail.com) **720.384.4377**

**Mechanical Design, Development, Testing, Documentation**

**Profile**

Mechanical Engineering student with academic background in the application of theory and simulations used in planning, designing, developing, testing, and validating mechanical systems. Original thinker and process-minded coupled with a creative artistic flair fostering innovation. Effective team member or at working independently in multiple projects. Inspired problem solver using good judgment in decision making ensuring the highest professional standards. Excellent oral, written, and presentation skills used in clear communications in both technical and non-technical environments. BSME expected 2019; GPA: 3.27.

**Summary of Qualifications**

|  |  |  |
| --- | --- | --- |
| * Standard principles & theories | * Planning & Design | * Project Management |
| * 3D Modeling | * Development & Testing | * Technical Documentation |

**Curriculum Completed**

|  |  |  |  |
| --- | --- | --- | --- |
| • Intermediate Dynamics | • Design/Materials | • Fluid Mechanics | • Control/Thermo Systems Design |
| • Solid Modeling | • Systems/Heat Transfer/Thermo | • Mechanical Vibrations | • Mechatronics |

**Academic Project & Work Experience**

**FLIR, Goleta CA, *Neural Network Data Collector*** **5/2019-present**

* Operated FLIR thermal camera collecting images to aid in building Convolutional Neural Net
* Analyzed and selected up to 300 photos per session distinguished by best object heat signatures
* Configured and programmed Raspberry Pi enabling viewing of heat signature photos from every session

**Senior Project-Ember, Cal Poly, Co-*Project Manager*** **1/2019-present**

* Conceptualized and completed design process incorporating Solidworks for autonomous fire protection robot for use in at-risk areas
* Designed full system in CAD, selected all parts, and fabricated drawings for manufacturing feasibility
* Collaborated with 4 engineers in design process utilizing mechatronics ensuring success for in-home use
* Programmed micro-controller on a Raspberry Pi enabling interface with camera and motor

**Quality of Life-Midas Project, Cal Poly, *Project Team Lead*** **9/2018-6/2019**

* Designed fully functional mechatronics left hand prototype for 10-year-old car accident victim enabling complete use of hand
* Managed project including design, fabrication, and trained 7 team members in SolidWorks ensuring design principles and delivery requirements
* Collaborated with electrical and biomedical engineers delivering operative left and right hand in perfect working condition on-time and within budget
* Recognized for successful cutting-edge project in the media <https://www.latimes.com/local/abcarian/la-me-abcarian-julian-20190604-story.html>

**Ryan M. Kissinger Page 2**

**Hatchery Entrepreneurial Project,Cal Poly*, Project Manager/Mechanical Engineer*** **8/2017-6/2018**

* Designed, modeled, and selected components for sport bottle with mechanical supplement delivery system
* Fabricated and currently testing 2 prototypes with provisional patent pending

**Quality of Life-ALPS Project, Cal Poly, *Project Manager* 4/2018-6/2018**

* Selected as project leader and managed 3 teams in analysis and redesign of adaptable athletic-use prosthesis
* Corrected faulty run/swim transitional mechanism through in-depth analysis, design, modeling, and testing
* Incorporated 3D modeling, development, and testing for buoyancy reduction, drag improvement, and completed project in less than 6 weeks

**Modular Automation Project, Sigma Phi Delta Cal Poly, *Lead Mechanical Engineer*** **3/2017-7/2017**

* Designed and drafted robot arm mechanical system and acted as project lead engineer
* Collaborated with electrical, computer, mechanical, and CPE’s producing robotic arm with Arduino microcontrollers

**Office Max/Chili’s Bar and Grill – Denver, CO** **6/2015-8/2017 & 6/2014-12/2015**

**Technical Skills**

|  |  |  |
| --- | --- | --- |
| * Solidworks, Blender, AutoCAD, FEA | * Simulink | * MATLAB, HTML, C, Unix, CSS |
| * Milling, welding, lathe work | * GTAW, SMAW | * Microsoft Office Suite, Windows, iOS |

**Education**

**California Polytechnic State University - San Luis Obispo, CA Expected 2019**

Bachelor of Science in Mechanical Engineering Concentration: Mechatronics

**Affiliations, Leadership & Awards**

• American Society of Mechanical Engineers • Sertoma Freedom Essay Winner – *What Freedom Means to Me* •

• Sigma Phi Delta, Past Social Chair, Rush Chair, Class President • Welcome Week, Orientation Leader •

• Future Business Leaders of America, Past Vice President and three-time Colorado award recipient **•**