Jeronimo Mora

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Education

University of California, Berkeley   M.S. Mechanical Engineering   Filed: Aug. 2018

Electives   Mechanical Behavior of Materials, Computer Graphics, Artificial Intelligence

University of California, Davis   B.S. Mechanical Engineering   Jun. 2016

Electives   Mechanical Design (2 terms), Materials Selection, Probabilistic Systems

Skills

- Software: SOLIDWORKS, Autodesk Inventor, MATLAB, C++, LabVIEW, and Python.
- Experiment design and strong aptitude for research
- Mechanical design (DFM), modeling of manufacturing processes, CAD/CAM.
- Working with Arduino, 3D printing, and G-code for rapid prototyping.
- Proficient in Microsoft Office. Fluent in English and Spanish. B1 level Italian.

Experience

Lawrence Livermore National Laboratory   Livermore, CA
Materials Engineering Division Intern   May 2014 - Aug. 2017 (Seasonal)

- Developed and pioneered new electrophoretic deposition (EPD) additive manufacturing techniques
- Developed software using **Python** to control 3D Printers and allow users to cancel parts on demand
- Wrote **LabVIEW** software to interface with hardware pumps and automate the EPD process
- Used **SOLIDWORKS** to design fixtures and adapters necessary for experiments
- Created the first draft of safety guidelines for a new microcapsule fabrication process
- 1st author of paper in **Additive Manufacturing**, 2nd author of paper in **Key Engineering Materials**
- Inventor on **2 filed patents**
- Presented work at a **Materials Research Society** conference in **Phoenix (AZ)**
- Work I performed presented by mentors in **Austin (TX)**, **Austria** and **South Korea**

University of California, Davis   Davis, CA
Undergraduate Research Assistant II   Oct. 2015 - Jun. 2016

- Used confocal microscope to study height bifurcation of colloids when subject to AC electric fields

Projects

Investigation of Energy Efficient Toolpaths for CNC Machining   Berkeley, CA
Programmer/Researcher   Spring - Summer 2018

- Integrated C++ code for making vector field based CNC toolpaths. Raised process efficiency by **over 6.5%**
- Improved existing experimental design to make data collection more meaningful

Embedded Sensors in Additively Manufactured Parts   Davis, CA
Experimentation and Simulation   Jan. 2016 - Jun. 2016

- Explored feasibility of embedded sensors in 3D printed parts by comparing experiments to CAD simulations
- Created circuit to measure internal strains in 3D printed beams using embedded strain gauges

Awards

University of California, Berkeley   2017 NSF GRFP Fellow, College of Engineering Department Award (F16, S17)
University of California, Davis   2014 American Honda HSF Scholarship, 2015 John Eric Peckham Scholarship