

SKILLS

Machine Design:

- Mechanisms, structures, machine elements, stepper motors, trade studies

Part Development:

- Injection Molding, machining and sheet metal
- Material selection
- FMEA, DFM, GD&T and Tolerance Analysis
- Testing, DOE
- FEA and analysis-based design

CAD modeling:

- Solid and surface modeling in SolidWorks

Programming:

- Processing, Arduino, VBA

Prototyping:

- Manual & CNC machining, Rapid prototyping, welding, forging, composites, vacuum forming

EXPERIENCE

OCTOBER 2015 – PRESENT

SR DESIGN ENGINEER, PENSA

- Designing, prototyping, testing and delivering mechanical and electromechanical systems for products like a CNC wire bending machine, a robotic trash chute, a vending machine, a stroller, a baby monitor and other consumer and industrial products across a range of markets, developing them from concept to production-ready
- Managing client relationships and communications, and closely collaborating with multidisciplinary teams to ensure client and customer input is translated into requirements

AUGUST 2013 – SEPTEMBER 2015

PRODUCT DEVELOPMENT ENGINEER, UNILIFE

- Designed, developed and tested four novel, mechanically-actuated reconstitution syringe platforms, from conceptualization to production-equivalent devices
- Defined engineering specifications based on user-exerted forces and risk analysis results

MAY 2012 – JULY 2013

RESEARCH ENGINEER, CARNEGIE MELLON UNIVERSITY / ASTROBOTIC

- Manufactured, assembled and tested Earth-demonstration prototypes of the Polaris rover, its lunar excavator payload, and other mobile robotic exploration platforms

EDUCATION

2012

MASTER OF PRODUCT DEVELOPMENT, CARNEGIE MELLON UNIVERSITY

2006

BS MECHANICAL ENGINEERING, UNIVERSIDAD IBEROAMERICANA, MEXICO CITY

Minor in Mechanical Design

COURSES

- Launchspace Space Vehicle Mechanisms, elements of successful design. Santa Clara, CA. May 3rd, 2016
- AAMI Human Factors for Medical Devices training, Alexandria VA. March 2015

AWARDS

DELPHI 2012 Innovation Competition (Awarded 1st Place) – Carnegie Mellon

- Led a team of 9 on the development of a vehicle alignment system that allowed drivers to accurately park an electric vehicle, including on their first attempt using the system, while repeatably aligning the car over a wireless charging pad with a precision of +/- 1"

LEADERSHIP

Mentor for Girls of Steel FIRST robotics team Fall 2012 – Summer 2013 – Carnegie Mellon

- Coached a team of high school girls on machine and tool usage in the machine shop and advised the mechanical team on the design of a robotic climbing mechanism

Engineering Intern Coordinator 2016 – Present – PENSA

- Managing schedules, projects, deliverables and expectations of 3 -5 engineering interns per year
- Providing interns with mentorship, advice and guidance to improve their engineering practice