Jordan Réjaud

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Education

Carnegie Mellon University Pittsburgh, PA Graduated in May 2013
- Master of Science in Mechanical Engineering
- Focus: Mechatronics and Robotics **GPA: 3.5/4.0**

Lehigh University Bethlehem, PA Graduated in May 2012
- Bachelor of Science in Mechanical Engineering
- Graduated with High Honors Minors: Aerospace Engineering, Anthropology, and Business **GPA: 3.6/4.0**

Work Experience

USAA San Antonio, TX Summer 2013-Present
Research Engineer III
Research Engineer in USAA's Innovation Lab. Research and Development on any technology which can benefit USAA or its members.
- Lead designer and developer on SmartThings-oriented "Internet of Things" technology
- Conceived, designed, wired, and coded AutoLocker, a device which locks computers when users walk away using hardware as opposed to software and thus will work on all Windows computers regardless of permissions/ administrator privileges

Saint-Gobain Performance Plastics Wayne, NJ Summer 2012
Process Engineering Intern
- Designed, purchased parts, coordinated technicians, and supervised physical implementation of Automated Waste Acid Management System to neutralize acid and prevent acid overflow onto the floor or backflow into external stack
- Proposed a process improvement and wrote associated software to streamline communication between floor operators and upper management in the plant in order to keep people accountable for their actions (or lack of)
- Designed and wrote software automating blade location calculation for slitting machine to reduce possible injuries
- Created Process and Instrumentation Diagram for two pieces of machinery in plant to explain their functions
- Suggested possibility of, purchased, and set-up software to automate monotonous data entry tasks to save time

Biosystems Dynamics Summer Institute Bethlehem, PA Summer 2011
Research Intern
- Research Project: Effects of polymer molecular orientation and biodegradation on stem cell differentiation
- Conducted tests on effects of Vibration Assisted Injection Molding on polylactic acid life cycle for tailored life-time polymer implant applications
- Grew and fed human bone marrow stem cells in a laboratory for future testing purposes
- Began designing linear sliding wall mechanism for injection molding machine to induce molecular orientation on polymer surfaces

Lehigh University Bethlehem, PA
Student Tutor, Center for Academic Success Fall 2011 – Spring 2012
Student Consultant: Help Desk, Library and Technology Services Fall 2009 – Spring 2010

Academic Projects

Robotic Frisbee Launcher Spring 2013
- Conceived concept, designed, and machined robotic Frisbee launcher which shoots multiple Frisbees at colored targets without human intervention

Hologram Generator Spring 2013
- Conceived concept, designed, wired, and coded (in 4 days) a hologram generator which uses a Microsoft Kinect to observe an object and recreate a three dimensional representation of that object inside an LED cube

Gravity Simulator Fall 2012
- Designed, built, and tested gantry position tracking system for gravity simulation device in order to simulate moon level gravity on Earth to test space-bound rovers

Persistence of Vision Display Spring 2012
- Build controller and external casing for Persistence of Vision display exhibit for Pittsburgh's Children's Museum. The POV display created colored three dimensional cylinders for children to manipulate and play with

Robotic Eel Spring 2012
- Conceived, designed, build, and wrote code for robotic eel which simulates motion of living eels for "TinyFish" micro-scale robot project

Robotic Eagle Claw Fall 2012
- Conceived, designed, build, and wrote code for automated, Eagle inspired, robotic claw to pick up small objects

Three Degree of Freedom Robotic Shoulder Fall 2012
- Designed and built structure for shoulder of robotic prosthetic arm for handicapped persons

Fundamentals of Aircraft Design Spring 2012

- Designed, constructed, and flew roadable aircraft successfully (on second attempt)
- Specced out motor/ battery and all other purchased parts

Fulbright Scholar's Research Assistant Winter 2012

- Conducted interviews in Bamako, Mali for research concerning "Modern Marriage and Polygamy in Western Africa"
- Made short video documentary documenting findings of reasearch

Leader of Integrated Product Development team Fall 2011 – Spring 2012

- Led team of a packaging process improvement project for Lutron Electronics leading to estimated yearly savings of $50,000
- Designed and built prototype for mechanical lock to prevent dirt particulate from entering packaging
- Suggested change in clamshell mold to prevent title cards from being ejected during packaging

Skills

Spoken Languages: Native French, Very Rudimentary Spanish
Software: Microsoft Office, AutoCAD, Algor, Solid Works, Rhino, I-DEAS, Sketchup, Final Cut Pro
Programming Languages: C++, Matlab, Visual Basic for Applications, RobotC, Python, C, Java (neophyte)
SMART (neophyte), Processing (neophyte), HTML (neophyte)
Manufacturing: Lathe, Mill, 3D Printer, Laser Cutter, CNC (neophyte), Injection Molding
Dual Citizen of the French Republic and the United States of America

Activities

Founder of Scotch Plains Fanwood FIRST VEX Robotics Team and Volunteered to be a judge for an official VEX competition
Member of Pi Tau Sigma (Mech. Eng. Honor Society)