Hang Yin

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EDUCATION

University of Colorado Boulder | Boulder, CO — Sep 2014 - Aug 2017
Master of Science in Mechanical Engineering — GPA: 3.67
Beihang University | Beijing, China — Sep 2010 - Jun 2014
Bachelor of Science in Astronautical Engineering
Politecnico di Milano | Milan, Italy — Sep 2012 - Feb 2013
Exchange program in Aerospace Engineering

SKILLS

Engineering: AFM, SEM, UV-vis, Machine shop

3D modeling and Mechanics analytical software: SolidWorks, ABAQUS, CATIA, AutoCAD

Programming and Automation: LabVIEW, MATLAB, Mathematica, C++, Python, PLC Programming

Language: English (Excellent), Chinese (Native)

WORK EXPERIENCE

Automation Engineer | Tamaki Control | Twin Falls, ID — Aug 2017 – Present

- Programmed CIP processes for food packaging machines using RSLogix and FactoryTalk
- Simulated the PLC program and optimized the cleaning processes during commission onsite
- Provided training for operators and site maintenance

RESEARCH EXPERIENCES

Research Assistant | xbLab, University of Colorado | Boulder, CO — Aug 2015 – April 2017

- Developed a bottom-up projection stereolithography system with micron-scale resolution (Master Thesis: Fabrication of Tissue-mimetic Environments Using Projection Stereolithography)
- Programmed software control with LabVIEW and MATLAB for electro-mechanical system and dynamic mask processing
- Designed optics, motion system and other hardware assembly for the printing device
- Planned and conducted experiments characterizing materials and optimized parameters for production
- Invented a printing method to quantitatively control Young's Modulus for 3D printed hydrogel structure from ~2 kPa to ~15 kPa with limited influences on topography and feature size

Lab Assistant | Aerospace Laboratory, Politecnico di Milan | Milan, Italy — Nov 2012 – Feb 2013

- Designed the drilling and sample extraction process used for planet-surface material characterization
- Tested the required torque level for drilling foam glass with various compressive strength
- Optimized the translation speed and force needed for the drilling and sample extraction

PROJECT EXPERIENCES

Team Leader | Mechatronics and robotics — Jan 2015 – May 2015

- Designed a self-navigated, multi-direction driving and accurate projectile-launching robot within a team of 4
- Programmed controls for motion, sensing and launching systems with Arduino and mbed using C++
- Designed the body structure and launching system with SolidWorks
- Designed circuits for motors, signal sensors, and power system and tested their functions