Aristos Athens

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Education

Stanford University 2017 - 2019

M.S. Mechanical Engineering (3.75/4.0) GRE: Math (170/170), Verbal (167/170)

Stanford University 2013 - 2017

B.S. Mechanical Engineering (3.6/4.0)

Experience

Internship, Biotech Software - Deepcell Bio, Mountain View CA

6/2018 - 9/2018

- Wrote control software in C# to automate microscope movement and image capture
- Wrote image processing scripts in Python to analyze images of cells in microfluidic channels
- Improved product accuracy and speed by improving cell detection via automation

Research, Robotic Arms - Camarillo lab, Stanford CA

9/2017 - 3/2018

- Wrote Python controller for Auris Surgical soft robotic arms
- Integrated sensor data into closed-loop position controller. Developed mathematical models of robotic arms for position estimation
- Improved range and responsiveness of end effector using concentric robotic arms

Research, Heat Exchangers - Ford Motors/Majumdar lab, Stanford CA

3/2016 - 3/2017

- Designed and fabricated counter-flow heat exchangers for use in entropy-driven ("lonocaloric") cooling
- Wrote MatLab scripts to communicate with Agilent 34970A datalogger and to log, analyze, and plot temperature and flow data
- High efficiency exchanger contributed to improved characterization of Ionocaloric redox agents

Internship, 3D Printer Design - TEAM Lab, Davis CA

6/2015 - 9/2015

- Designed, prototyped, and manufactured a 3D printer using 3D printing, lasercutting, milling techniques
- Manufactured mechanical components for an Ultimaker 3D printer, including build platform, extruder, filament holder, frame
- Assembled functioning Ultimaker 3D printer using my manufactured components and salvaged electrical components

Research, Soft Tissue Biomechanics - Levenston lab, Stanford CA

6/2014 - 9/2014

- Ran a controlled 2 factor study using irradiated APC (Aluminum Phthalocyanine Chloride) and LOX (Lysyl Oxidase) to promote collagen crosslinking in bovine articular cartilage

Research, Soft Tissue Biomechanics - Athanasiou lab, Davis CA

8/2011 - 8/2013

- **Published journal article**: Induced Collagen Cross-Links Enhance Cartilage Integration, Athens Hu Makris, 2013, PLoS ONE 8(4): e60719. doi:10.1371/journal.pone.0060719

Leadership/Outreach

Residential Assistant, Stanford Slav Cultural House 2016 – 2017. Stanford Energy Club, Officer 2015 – 2017. Stanford Hellenic American Society, Vice President 2013 – 2017. Math Tutor, Cardinal Education 2011 – 2015.

Skills

Software: Python, Go, C#, C, SolidWorks, Altium

Hardware: 3D Printers, Microfluidics, Mills, Lathes, Laser Cutters