Jacky Lao

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⌨ https://github.com/selwyni
U.S. Citizen

Education

2015 – 2019

Carnegie Mellon University, *B.S. Materials Science & Engineering, Computer Science Minor*,
Pittsburgh, PA.
Cumulative QPA - 3.87

Papers and Projects

2016

Research Assistant, CARNEGIE MELLON UNIVERSITY, Pittsburgh, PA.
- Sudipto Mandal, Jacky Lao, Sean Donegan, Anthony D. Rollett, "Generation of representative three-dimensional microstructure for two-phase titanium alloys." (In preparation)
- Application of data mining and data science techniques to microstructural data
- Investigation of multiple length scales of Two-Phase Titanium alloy microstructure with EBSD, SEM, DIC, Optical Microscopy.

Experience

2016

Research Assistant, CARNEGIE MELLON UNIVERISTY, Pittsburgh, PA.
- Assisted Sudipto Mandal and the Rollett Group on projects involving analysis of DREAM3D software and evpFFT data
- Wrote R scripts and m-files to analyze the accuracy of DREAM3D generation algorithms
- Mounted and polished Ti-6Al-4V samples for SEM, EBSD
- Applied data analysis and visualization techniques to HDF5 outputs from evpFFT of 3-dimensional microstructures
- Built a basic ETL pipeline with reusable and generic functions in Python and R

2015 – 2017

Production Manager, CARNEGIE MELLON UNIVERSITY, Pittsburgh, PA.
- Streamlined rehearsal room reservation process and shortened average waiting times by 30 minutes
- Scheduled major checkpoints and ensured execution of milestones
- Facilitated conversations between board of directors and production board
- Developed contingencies for problems that would negatively affect production

2015 – 2017

Set Designer, CARNEGIE MELLON UNIVERSITY, Pittsburgh, PA.
- Designed the set for an entirely student written and produced production
- Maintained open lines of communications between directors and implementers to achieve the artistic vision

2015 – 2017

Stage Manager, CARNEGIE MELLON UNIVERSITY, Pittsburgh, PA.
- Maintained communication between all production members
- Organized rehearsals for thirty people

2013 – 2015

Technical Director, NORTHWOOD HIGH SCHOOL, Irvine, CA.
- Decreased lumber costs by 30% by decreasing waste
- Coordinated eight technical departments in meeting checkpoints
- Analyzed and determined cost-efficiency and quality of set pieces

Technical Skills

Proficient: MATLAB, Python, R, LaTeX
Familiar: Rust, SQL, Git, Linux, Mathematica, ParaView
Instrumental: Optical Microscopy, X-Ray Diffraction, Scanning Electron Microscopy

Coursework

Current: Probability Theory, Functional Programming, Materials Characterization, Transport, Defects, Phase Relations
Completed: Imperative Programming, Differential Equations, Engineering Statistics, Machine Learning (Coursera)