Michael May

970-278-1255

michaelpmay@live.com

EDUCATION

B.S. Chemical and Biological Engineering *(Fall 2012 - Spring 2017)*

B.S. Biomedical Engineering **GPA 3.51**

Ph.D Biomedical Engineering *(Spring 2017 - Current)*

Colorado State University *Fort Collins, CO*

EXPERIENCE

Research *Spring 2014 ~ Fall 2016, Fort Collins, CO*

- Team member in probe design research project which recently received funding from the Keck Research Program
- Wrote C++ and CUDA code with MATLAB API to speed up stochastic simulations by ~120x
- Generated code base to reduce simulation coding time for lab members
- Read, analyzed, and applied concepts from research papers on a weekly basis
- Regularly presented research updates and findings, and taught difficult material to small audiences

Q-Bio Summer School *Summer 2015, 2016, & 2017, Fort Collins, CO*

- Attended two week long graduate seminar studying applied mathematics and biological dynamics
- Worked with dozens of graduate students and professors from around the world on mathematical modeling
- Taught graduate students from other universities how to apply the finite state projection
- Developed advanced stochastic and differential models for a number of biological scenario

ENGINEERING PROJECTS

Biomedical Engineering Labs & Design Projects *Fall 2012 ~ Spring 2017*

- Developed an airbrushing apparatus to create nanofibers from demineralized bone & human adipose tissue
- Team leader in group project that used ultraviolet light to disinfect surgical tools while under monetary constraints
- Used MATLAB toolboxes to break down electromyography signals with IIR filtering to predict muscle activity
- Analyzed blood velocity changes in embryonic fish to predict the effect of altered shear stresses on heart development using video analysis software
- Tested for Type I and Type II errors in blood pressure monitors and analyzed changes in error under imposed conditions

SKILLS & MISC

- **Programing Languages: Python**, **MATLAB**, **C++ and CUDA**
- Experience with Linux, cluster computing, and Git
- Self-taught linear algebra, Bayesian statistics , object oriented programing, Tensor Calculus, C++ and CUDA
- Experience in chromatography, TLC, electrophoresis, distillation, PCR, membrane separations, lyophilization, heat exchange systems, and bioreactors
- College of Engineering Deans List ~ Fall 2016
- Keck Scholar

PRESENTATIONS & PUBLICATIONS

- *(Upcoming Publication, Joint 1st author)* Using Stochastic Models to Extend the Color Palette for Single-Molecule Microscopy
- (*Single Track Contributed Talk - Rutgers, New Brunswick NJ*) Using Stochastic Models to Extend the Color Palette for Single-Molecule Microscopy