MAILE JIM

808-729-2586
mailejim@mit.edu
mailejim.com

EDUCATION

Massachusetts Institute of Technology (MIT) May 2022 | **GPA: 4.9/5.0**

Degree: Bachelor of Science in Biological Engineering, Minor in Computer Science

Relevant courses: Cancer Immunology, Biomolecular Systems Analysis, Genetics, Biochemistry, Cell Biology, Organic Chemistry, Python Intermediate Programming

SKILLS

Laboratory Bacterial/mammalian cell culture, mass spectrometry, HPLC, NGS sequencing analysis, gene cloning, plasmid assembly, sequencing, PCR, and protein purification

Computer Python, R, MATLAB, and Bash shell scripting

Communication Scientific writing (research proposals, experimental papers), presentations, figure design

EXPERIENCE

Alnylam Pharmaceuticals **Cambridge, MA**

RNAi Discovery Department, Analytical Chemistry Co-op *January 2021 - Current*

- Prepare and analyze siRNA for research and drug discovery collaboration
- Analyze purity and identity of oligonucleotide single strands and duplexes through mass spectrometry
- Contribute to hundreds of *in vitro* and *in vivo* preclinical drug development studies
- Perform analysis through software tools such as ChemStation and Pyros eXpress
- Founded and led co-op journal club and presented relevant papers

Biotherapeutics Seminar **Cambridge, MA**

Student *September 2020 – December 2020*

- Designed and wrote 12-page, independent, original research grant proposal: "T cell Epitope Modification of AAV for Immune Escape"
- Reviewed and discussed 50+ scientific papers
- Presented 4 times on recent literature and own original proposal
- Provided written and verbal feedback on peers' original proposals

AbbVie Pharmaceuticals **Worcester, MA**

Biologics Discovery Department, Bioinformatics Intern *May - August 2020*

- Worked with Protein Engineering and Expression group
- Optimized ribosome profiling (ribo-seq) analysis pipeline and added small open reading frame (sORF) detection by testing 12 software packages
- Conducted literature review of rapidly evolving technology in ribo-seq and sORFs
- Presented work to 30+ group members
- Contributed to drug development discovery pipeline for engineering stable cell lines and target discovery

Timothy Lu Lab, MIT Synthetic Biology Center **Cambridge, MA**

Undergraduate Researcher *September 2019 - March 2020*

- Designed and built genetic circuits for gum disease regeneration
- Expanded on previous work by finding an unfinished project on campus and quickly familiarizing myself
- Created cells that detect inflammation and emit appropriate levels of growth factors for cell proliferation
- Performed mammalian cell culture and molecular cloning

LEADERSHIP

Associate Advisor, Biological Engineering Department *August 2020 – Current*

Team Captain, MIT Intercollegiate Sailing *August 2018 – Current*

Teacher, MIT Global Teaching Labs Kazakhstan; Germany *January 2019; January 2020*

Operations Lead, MIT Spokes (teaching STEM along cross-country cycling route) *May 2019 – August 2019*