

SAMANTHA SHEN

CELL: 908.200.6900 | EMAIL: SHEN.SAMANTHA@YAHOO.COM | LOC: BRANCHBURG, NJ 08876

WORK HISTORY

LAWRENCE LIVERMORE NAT'L LAB, May 2020—Aug 2020, 40hours/week

Bioinformatics Intern (Summer Internship)

A summer internship to build and curate a model of an algicidal bacteria to determine growth with flux balance analysis.

- Use MATLAB and KBASE to build and curate bacterial model with stoichiometry matrix
- Write R script to curate and query relevant data for curation
- Debug inconsistencies in compound uptake and export

GEORGETOWN LC CANCER CENTER, Jan 2020—Aug 2020, 16-20hours/week

Graduate Research Assistant

Analyze metabolomic data of non-human primate serum to evaluate the effects of radiation and radiation protection drug in the lab of Amrita Cheema.

- Develop R script to manage and streamline metabolomics data analysis software
- Manipulate data frames and calculate statistical tests to determine significance
- Create plots and figures with statistically significant data and appropriate false discovery rate

GENEWIZ, Feb 2018—Jul 2019, 40hours/week

Associate Scientist

Conducted GMP/GLP and CLIA confirmatory projects for customers, from DNA/RNA isolation to sequencing and data analysis.

- Nucleic acid extraction, purification, PCR, gel electrophoresis, band purification, and sequencing
- Utilized lasergene and DNA analysis software
- Assembled completed project summary for customer

SKILLS

- R Script (dplyr, tidyverse, statistical analysis, t-tests, ANOVA, ggplot2, NGS data analysis)
- Python through Linux environment
- Next-generation sequencing data analysis (BWA, FreeBayes, HISAT2)
- Relational databases (SQL)
- Bioinformatics tools (NCBI BLAST, PyMol, IGV)
- Java
- Webpage design using HTML/CSS
- Project Management
- MATLAB
- Gene sequencing

EDUCATION

GEORGETOWN UNIVERSITY
M.S. Bioinformatics, 2019-2020
GPA: 3.9/4.0

RUTGERS UNIVERSITY
B.S. Biotechnology, 2013-2017
GPA: 3.4/4.0

VOLUNTEER EXPERIENCE

ZUFALL HEALTH CENTER, 2015—2019
Patient Advocate