Cameron Matsui

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EDUCATION

Amherst College **Amherst, MA**
Bachelor of Arts in Mathematics and Computer Science Expected December 2022

- Cumulative GPA: 3.95/4.00
- Major GPA: 4.00/4.00

EXPERIENCE

Amherst College **Amherst, MA**
Gregory S. Call Summer Research Fellow June - July 2021

- Studied adverserial queueing theory model of packet routing in theoretical computer science
- Wrote software to simulate various forwarding protocols in the model to test performance
- Proved equivalence for the total number of packets on the network for a class of forwarding protocols

The University of Texas at Austin, Department of Integrative Biology **Austin, TX**
Research Fellow, UT COVID-19 Modeling Consortium, and the Meyers Lab May 2020 - January 2021

- Researched the transmission dynamics of COVID-19
- Assisted the University of Texas at Austin in reopening for the fall and spring semesters of 2020-2021
- Organized weekly journal club meetings to discuss relevant papers

PROJECTS & ACTIVITIES

RateOurCourses.com **Amherst, MA**
Backend Web Development October 2020 - Present

- RateOurCourses.com is a student-run course review site that helps Amherst College students choose their courses
- Used Python to scrape courses, semesters, and faculty from Amherst College's website to populate databases
- Refactored all PHP code and added features to view all course reviews for a professor and to aggregate reviews across departments for cross-listed courses

ModularEpi **November 2020 - January 2021**

- ModularEpi is a flexible Python framework for building and running compartmental epidemiological models
- Features include metapopulation modeling and programmatic construction of the next-generation matrix to calculate R_0
- Available at github.com/cammatsui/modularepi

PUBLICATIONS

C Matsui, KE Johnson, R Pasco, M Lachmann, SJ Fox, LA Meyers. COVID-19 Campus Introduction Risks for Spring 2021 at the University of Texas at Austin. January 29, 2021. available: sites.cns.utexas.edu/sites/default/files/cid/files/ut_spring_introductions.pdf

C Matsui, R Pasco, KE Johnson, SJ Fox, LA Meyers. COVID-19 Transmission Risks for Reopening the University of Texas at Austin. September 25, 2020. doi: doi.org/10.15781/gz1w-y228

C Matsui, KE Johnson, R Pasco, M Lachmann, SJ Fox, LA Meyers. COVID-19 Campus Introduction and Gathering Risks for Reopening the University of Texas at Austin. August 20, 2020. doi: doi.org/10.15781/aa7a-0c58

CONFERENCE PRESENTATIONS

C Matsui, R Pasco, KE Johnson, SJ Fox, LA Meyers. Model-based assessment for the risk for university amplification of community COVID-19 transmission. Poster presented at: 2021 MIDAS Network Annual Meeting; May 2021; Virtual.

C Matsui, R Pasco, KE Johnson, M Lachmann, SJ Fox, LA Meyers. COVID-19 Risks for Reopening the University of Texas at Austin; Poster presented at: UT COVID-19 Conference; November 2020; Virtual.

TECHNICAL SKILLS

- Literate in Java and Python
- Experience with R, LaTeX, Git, PHP, MySQL, Linux, JavaScript, and HTML/CSS.