CURRICULUM VITAE
W. Zane Billings

Contact Information:
- Email: `wb12984@uga.edu`
- Homepage: `https://wz-billings.rbind.io` (Connects to GitHub and LinkedIn)

Education:
- Current. PhD, Epidemiology and Biostatistics, University of Georgia.
- 2020. B.S., Biology and Mathematics, Western Carolina University.

Publications:
- Mckay B, Ebell M, <u>Billings WZ</u>, Dale AP, Shen Y, Handel A. Associations between relative viral load at diagnosis and influenza A symptoms and recovery. *Open Forum Infectious Diseases.* 2020; 7(11).

Teaching experience:

<u>Lab assistant</u>   Spring 2019 - Spring 2021
- Lab assistant for MATH 340: Intro to Scientific Computing at WCU for three semesters.
- Taught LaTeX, Excel, Mathematica, `MATLAB`, and `R` to students from diverse majors, including mathematics, computer science, engineering, biology, and chemistry.
- Developed hands-on activities for students to complete in and out of class to either facilitate understanding of course topics, or explore applications.
- Assisted students in debugging code during hands-on class time.

<u>Course tutor</u>   Spring 2017 - Spring 2019
- Tutored several courses at WCU's student tutoring center, including introductory biology, organic chemistry, genetics, evolutionary biology, immunology, and microscopy.
- Worked one-on-one with students to reinforce course content, including working with non-traditional students.
- Adapted course information to the individual learning styles of a diverse client body.
- Led group tutoring and review sessions where I was responsible for assisting several students at once with course material.

Awards:
- GREAT Fellowship for full funding research appointment, University of Georgia, 2020 – present.
- Meritorious Winner, COMAP Mathematical Contest in Modeling, 2019. (Submitted solution is available on my website.)
- WCU Distinguished Achievement Scholarship, $20,000, 2016 – 2020.

- Stacy O'Connell Scholarship and research grant, 2018–19 and 2019–2020. Total of $1000 for independent research in cell biology.

Research:
- OEIS (On-line Encyclopedia of Integer Sequences) Contributions: All of these sequences can be viewed at `https://oeis.org`.
    - Author of sequence A319302.
    - Author of sequence A309092.
    - Wrote Python code and generated a b-file for sequence A110529.
- Population Biology of Infectious Diseases REU participant. Worked with Andreas Handel at the University of Georgia in Summer 2019. Research resulted in McKay et al. publication in Open Forum Infectious Diseases.
- Math-Biology REU participant. Worked with Louis-Marie Bobay at the University of North Carolina at Greensboro in Summer 2018.
- Senior thesis. Worked with Heather Coan at Western Carolina University as part of obtaining my B.S. degree; this research resulted in a thesis available upon request.

Skills:
- Programming: R, Python, MATLAB, Git, bash.
- Software: Mathematica (Wolfram language), Tableau, NetLogo, SAS.
- Presentation: LaTeX, Markdown (and R-Markdown), HTML, CSS.