

# Solving Problems with Data Science at Virginia Tech

## Summer REU 2022

### Data Sciences Project:

Biomechanics of flying snakes (Socha Lab)

### Project Description:

Flying snakes are perhaps the world's most unconventional gliders, turning their body into a wing by changing shape and undulating in the air. Our lab studies how these snakes move, from ground to tree to air. In the summer of 2022, we will be traveling to Brunei (a country in northern Borneo) to conduct research on flying snakes in their native environment. We'll be doing multiple movement studies that focus on gliding locomotion, climbing, and feeding. Our team will be working on the campus of Universiti Brunei Darussalam, where we will be housed as well.

In addition to the REU, this work is supported by NSF 2027523 and 1954172. All travel and housing expenses will be paid by the program.

### Expected Qualifications of Students:

Students are expected to have a basic understanding of biology and engineering, but we will consider applicants from all STEM majors.

### Faculty Bio:

Dr. Jake Socha is the Samuel Herrick Professor of Biomedical Engineering and Mechanics at Virginia Tech. He received his B.S. from the Duke University, and his Ph.D. from the University of Chicago.

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