Daniel Scott Borrus, Ph.D.

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EDUCATION

William & Mary **Williamsburg, VA**
Ph.D. in Computational Neuroscience *Aug 2017 – Jan 2022*

William & Mary **Williamsburg, VA**
B.S. in Neuroscience *Aug 2013 – May 2017*

- Graduated cum laude, published an undergraduate honors thesis

EXPERIENCE

William & Mary Respiratory Neurobiology Lab **Williamsburg, VA**
Ph.D. Candidate *Aug 2017 – Present*

- Directed the project that uncovered the cellular mechanism underlying the sighing rhythm.
- Deployed electrophysiology and mathematical modeling to reveal the neural origins of the breathing rhythms.
- Wrote and published two peer-reviewed articles as first author.

William & Mary Computational Biology Lab **Williamsburg, VA**
Undergraduate Researcher *Jan 2015 – Jun 2017*

- Devised mathematical models of biological neural networks.

Molecular NeuroImaging **New Haven, CT**
Summer Intern *Summers, 2013 – 2017*

- Designed database routines and visualizations for Data Management with PostgreSQL.
- Coordinated a large off-site storage project and helped streamline data entry for the clinic.
- Designed databases for Project Management.

TECHNICAL SKILLS

- Languages: MATLAB, Python, bash scripting, PostgreSQL, XppAUT, LaTeX
  - Experienced with numerical modeling, HPC, parallel computing, and machine learning
- Applications: Github, Microsoft suite, Lab Chart, IGOR Pro, FIJI/ImageJ
- Lab skills: rodent neurosurgery, plethysmography, *in vitro* electrophysiology and patch-clamp

LEADERSHIP & COMMUNITY ENGAGEMENT

WAKA recreational sports league **Hampton Roads, VA**
Team Captain *Summer 2021 – Present*

- Captain of a beach volleyball and kickball team
- Led practices, liaised with league commissioners and other teams, and managed finances for 20 teammates

William & Mary Biomathematics Journal Club **Williamsburg, VA**
Recurring Lecturer *2014 – 2021*

- Delivered biannual lectures, coordinated in-person and virtual meeting logistics

William & Mary **Williamsburg, VA**
Teaching Assistant *2017 – 2019*

- Led lectures for Cellular Biophysics and Modeling, provided 1-on-1 tutoring for undergraduates