

## CURRICULUM VITAE

Robert Lamprecht

### Business Address:

Georgia Institute of Technology  
U.A Whitaker, 313 Ferst Drive NW  
Atlanta, GA 30332.

**Email:** robert.lamprecht@bme.gatech.edu

**Business Number:** (843)826-8128

## EDUCATION

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August 2018 – May 2022

B.S. Computer Science, Concentration: Neuroscience  
Wofford College  
GPA: 3.72

## PUBLICATIONS & PRESENTATIONS

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### Abstracts

1. **(Lamprecht R, Zhao Y, Fong M)** (2023) Longitudinal electrophysiological assessment of visual ability in mice. Society for Neuroscience Annual Meeting. Georgia Institute of Technology and Emory University

### Presentations

1. **(Lamprecht R)** (2021) Epidural stimulation and the facilitation of diaphragm motor output. Summer Neuroscience Internship Program Research Symposium. University of Florida

## AWARDS AND HONORS

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1. University of Florida- Summer Neuroscience Internship Program (SNIP) Symposium Second Place Presentation Award, 2021
2. Wofford College- Benjamin Wofford Scholarship
  - a. Award Given for Most Competitive Undergraduate Applications, 2018 – 2022
  - b. Amount: \$35,000 annually

## RESEARCH EXPERIENCE

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### Georgia Institute of Technology, Atlanta, GA

June. 2022 – Current

Research Technician (40h / week) in the Laboratory of Dr. Ming Fai Fong

1. Developed suite of tools for the presentation of visual psychophysics paradigms and cortical recordings via LFP electrodes
2. Performed surgery to implant LFP electrodes in primary visual cortex.
3. Performed Histological verification of electrode tracts.

### Wofford College, Spartanburg, SC

Sep. 2021 – Dec. 2021

Undergraduate Research Assistant (10h/ week) in Laboratory of Dr. David Pittman

1. Developed protocol for testing anxiolytic and mood enhancing medications in rodent subjects.

2. Constructed materials for behavioral paradigms such as the elevated plus maze.
3. Collected pilot data to verify the methods.

**University of Florida, Gainesville, FL.**

June 2021 – August 2021

Summer Neuroscience Internship Program

Visiting Undergraduate (40 h/ week) in Laboratory of Dr. Erica A. Dale

1. Led study to evaluate the efficacy of closed loop epidural stimulation to increase diaphragm motor output following a cervical spinal cord injury.
2. Assisted in surgery and post operative care.
3. Managed daily stimulation therapy via neurochip.
4. Collected and analyzed evoked motor potential.

## SKILLS AND COMPETENCIES

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### 1. Animal

- a. Rodent husbandry
- b. Proper aseptic surgical technique
- c. Post-operative rodent care

### 2. Electrophysiology

- a. Recording and analysis of cortical activity via LFP electrodes
- b. EMG recording and analysis of rat diaphragm via intramuscular electrodes
- c. Therapeutic stimulation of rat spinal cord through epidurally-implanted electrodes
- d. Temporal measurements of impedance through epidurally-implanted electrodes

### 3. Fluorescent Microscopy

- a. Experience generating multichannel z-stacks and stitched images
- b. Histological verification of lesion area

### 4. Tissue Histology

- a. Cryosectioning of central nervous system tissue
- b. DAPI Staining
- c. BDNF Staining

### 5. Software Development

- a. Certified in Bonsai Rx
- b. Proficient in Python, C++, and Java

### 6. Data Analysis and Management

- a. Proficient in Python, MATLAB
- b. Experience with TensorFlow, Matplotlib, Pandas, and Brian2 libraries
- c. Data visualization and analysis in Jupyter, GraphPad Prism, SPSS, and JMP

## UNDERGRADUATE COURSE WORK

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1. Clinical Neuroscience
2. Affective Neuroscience
3. Behavioral Neuroscience
4. Cellular Neurobiology
5. Genetics

- 6. Linear Algebra**
- 7. Databases**
- 8. Data Structures & Algorithms**
- 9. Discrete Mathematics**
- 10. Calculus II**