

JAMES A. HOUNSHELL

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PROFESSIONAL PROFILE

A research scientist currently making the transition to software development. Eager to learn new computing languages including those for mobile and web applications. Competent in Matlab code as well as some experience with Python, R, and scripting in ImageJ. Ability to plan, manage and execute projects, leading to the achievement of goals. Excel in environments requiring the acquisition of new skills, organization and attention to detail. Possess effective communication skills when interacting with diverse individuals and groups. Demonstrate aptitude for working independently and as a member of a team. Exhibit advanced capacity in the areas of writing and research.

WORK EXPERIENCE

University of Virginia, Charlottesville, VA Graduate Student

July 2012 – present

Understanding the mechanisms that contribute to seizures and disrupted circuits temporal lobe epilepsy. Summarizing and synthesizing published research. Designing and executing research projects incorporating novel experimental techniques. Extracting feature data from electrical recordings of neuronal activity using Matlab to automate and standardize repetitive tasks. Statistical analysis of large data sets and subsequent interpretation of the results. Presenting data in a variety of formats such as University seminars and posters at multinational conferences. Mentoring of junior graduate students, lab techs, and undergraduates. Managing and evaluating undergraduate research projects. Collaborating with other neuroscience labs to utilize advanced technologies including using genetic reporters of voltage to interrogate the activity of intact neuronal networks and using Python to create models of neuronal circuits and modelling ion channel dynamics. Teaching at local schools during the national Brain Awareness Week and a local Science Expo.

- Wrote an extensive review of mechanisms of temporal lobe epilepsy and presented it in a talk format in the successful completion of the neuroscience qualifying examination for continuation of Ph.D. candidacy.
- Contributed to two published papers. One paper in the last stage of publication. In the process of writing one additional papers in which I was instrumental in acquiring data, analysis, and interpretation.
- Presented my research findings at Gordon Research Conference in Vermont and the Society for Neuroscience in Washington, DC.
- Successful mentoring of three undergraduates who went on to graduate from the Distinguished Majors Program in Research. Currently mentoring three additional undergraduates at various stages of their undergraduate education.

James Madison University, Harrisonburg, VA Research Assistant

August 2011 – May 2012

Conducted research culminating in thesis project: *Biochemical Characterization of the Novel Human Tear Protein Lacritin*. Assayed the physical properties of Lacritin to better purify it from a crude protein mixture.

- Presented thesis during undergraduate research symposium.

James Madison University, Harrisonburg, VA Laboratory Technician

January 2010 – June 2012

Performed weekly production and purification of recombinant protein from E.Coli (including growth, induction, lysis, column chromatography, quantification assays, storage, etc.).

- Began as a volunteer laboratory technician and was offered a paid position.

EDUCATION

Ph.D. in Neuroscience

Anticipated Fall 2016

University of Virginia, Charlottesville, VA

- Vesna and Sloba Todorovic Anesthesiology Research Celebration Day Research Award for excellence in Investigation by a Graduate Student

Bachelor of Science in Biotechnology

2012

James Madison University, Harrisonburg, VA

- Volunteered as a teaching assistant at the request of the Department Chair.