

# Eleisha L. Jackson

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**SUMMARY:** Computational Biologist with skills in large-scale data analysis, teaching, and technical writing.

## RELEVANT EXPERIENCE

**Graduate Researcher**, University of Texas at Austin, Austin, TX Aug 2012–Present

- Performed and presented current research results every three months at lab meetings
- Supervised an undergraduate on a project and helped guide learning of python and biological software
- Wrote a grant that provided funding in the form of a National Science Graduate Research Fellowship that pays \$32,000 a year for three years with additional tuition assistance paid to the university

### Project 1: Amino-acid site variability among natural and designed proteins

- Analyzed the ability of current protein design software to design proteins that recapitulate observed sequence patterns in natural proteins
- Worked as a team with another lab in California to design proteins and analyze results
- Summarized project results and helped write the research paper for publication as the first author
- Presented the results at a conference in the form of a poster

### Project 2: Computational Prediction of Virus-Host Protein-Protein Interactions

- As part of a multi-lab government funded project, I collaborated with three other labs to investigate the evolution of viruses that cause hemorrhagic fever and death in humans.
- Developed a method to make computational predictions of virus-host protein binding
- Worked with experimental labs to validate computational protocol
- Wrote lab quarterly reports that were integrated into a project-wide report for funding agency reports

### Project 3: Relationship between thermodynamic constraints and variation of evolutionary rates among sites

- Worked with an international collaborator to link protein thermodynamic changes to protein evolution.

**Graduate Teaching Assistant - Intro to Computational Biology FRI (BIO 321G)** Jan–May 2013, 2014

- Assisted students in learning biological concepts and computational skills such as python programming
- Helped students learn research skills such as experimental design, technical writing and presentation

**Graduate Teaching Assistant - Laboratory Experiments in Biology (BIO 206L)** Aug–Dec 2012

- Instructed and assessed students weekly on standard lab practices and basic lab techniques
- Graded assistants and communicated feedback to students to help improve their performance
- Held weekly office hours to discuss course content, give feedback and answer student questions

**CNS 101 Lead Facilitator**, University of Texas at Austin, Austin, TX August 2014–Present

- Developed and taught lesson plans to a group of freshman students about campus resources, time-management, careers, and college adjustment and developed strategies to improve CNS 101
- Worked with an undergraduate peer facilitator to develop a curriculum that helped students learn technical computer science (CS) skills while learning general skills such as study strategies
- Led weekly meetings of a group of students during the Fall semester and supervised extended bi-weekly meetings during the Spring where students developed their own CS project to execute

## TECHNICAL SKILLS

- Proficient in Microsoft Office (Excel, Powerpoint, Word)
- Worked in several programming languages: Python, C, and R, Software and biological packages: Rosetta, FoldX, PyMOL, and Biopython, git for version control and project collaboration
- Experience writing research summary reports using Word and LaTeX

## EDUCATION

**Ph.D. in Ecology, Evolution, and Behavior, Dept. of Integrative Biology.**  
The University of Texas at Austin, Austin, TX.

Expected 2017

**Bachelor of Science, Mathematics, Biology, Art History Minors**  
University of Arizona, Tucson, AZ

May 2012