Imageomics Institute Graduate Research Assistant

The Tulane University Biodiversity Research Institute (TUBRI) is searching for a Graduate Research Assistant (GRA) to involve in an exciting, research project entitled, Imageomics: A New Frontier of Biological Information Powered by Knowledge-Guided Machine Learning. TUBRI is a research center of Tulane’s School of Science and Engineering, located on the grounds of the F. Edward Hebert Research Center in Belle Chasse, Louisiana, a suburb of New Orleans. TUBRI houses the Royal D. Suttkus Fish Collection and specializes in biodiversity discovery (primarily involving fishes) and biodiversity informatics research.

The Imageomics Institute is collaborative, multi-institution, multi-investigator project involving biologists and computer scientists who are training machine-learning algorithms to extract phenotypic trait data from images of a variety of types of biological specimens. The learning is aided by structured biological knowledge such as an anatomy ontology and phylogenetic trees. The GRA will contribute to ongoing efforts at TUBRI to train computer algorithms to extract trait data from images of fish specimens.

Interested persons must apply for admission to the Ph.D. program in Tulane’s Department of Ecology and Evolutionary Biology (EEB) where they will develop and complete original dissertation research project under the mentorship of Dr. Henry L. Bart Jr, Professor of Ecology and Evolutionary Biology and TUBRI Director, and Dr. Yasin Bakış, Senior Manager of Biodiversity Informatics and Data Engineering at TUBRI. The GRA position is funded for three years, but support guaranteed for up to 2-3 additional years of graduate study for completion of the Ph.D. degree.

The GRA will also have opportunities to interact with other biologists, computer scientists, postdocs, and students from 10 other universities and research centers involved in the Imageomics Institute.

Desired Knowledge, Skills, and Abilities
- Working knowledge of at least 2 of the following languages (one from each group):
  - {Java, C, C++, C#}, {Python, PHP, Perl}, {R, Bash, JavaScript}, {ORACLE SQL, MSSQL, PostgreSQL, MySQL}

Required Education and/or Experience
- BSc in Biology, Computer Science, Information Sciences, or a related field
- Should commit to complete PhD study in Ecology and Evolutionary Biology (EEB) or Interdisciplinary EEB and Computer Science

Preferred Qualifications
- MSc in Biology, Computer Science, Information Sciences or a related field
- Working knowledge of Unix based operating systems
- Prior experience in one of the following fields: Image Processing, Artificial Intelligence, Genetic Algorithms, Biodiversity Informatics, Computational Biology, Bioinformatics, Biomedical Informatics, Ecoinformatics or a related field (publications)
- experience in Image Processing projects
- experience in Artificial Intelligence/Neural Networks projects
- experience in web-database applications
experience in Genetic Algorithms

**Other requirement for the position**
- Admission the Ph.D. program in Ecology and Evolutionary Biology at Tulane University
- The position is open to international candidates
- Should be able to travel internationally
- Strong communication and interpersonal skills

**Preferred Start Date**: Fall 2023. Please use this link to apply for admission to the EEB Ph.D. program: https://applygrad.tulane.edu/apply/

For additional information or questions about the position please contact Henry Bart (hbartjr@tulane.edu)