Julia Zheng
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## Computer Skills

**Languages**

- Proficient in: Python, C
- Familiar with: Bash, R, C++, Java, MASM, HTML, PHP, SQL

**Software**

- VirtualBox, HPCC Systems, Microsoft Suite, Adobe Photoshop, GIMP, TopCon Synergy database, LaTeX, Zotero

## Education

**(Qualified Status) PhD in Computer Science & Engineering and Ecology, Evolution, and Behavior** 2019 - Current
*Michigan State University in East Lansing, MI, United States of America*

**BS in Computer Science (With Great Distinction)** May 2019
*University of Windsor in Windsor, ON, Canada*

**BS in Microbiology and Immunology** Feb 2018
*McGill University in Montreal, QC, Canada*

## Publications & Conferences

**Peer-reviewed journal papers**

1. Wang, W., Hejasebazzi, A., **Zheng, J.**, & Liu, K. J. (2021). Build a better bootstrap and the RAWR shall beat a random path to your door: phylogenetic support estimation revisited. *Bioinformatics*, 37(Supplement_1), i111-i119.
2. Hamzeh, O., Alkhateeb, A., **Zheng, J.**, Kandalam, S., & Rueda, L. (2020). Prediction of tumor location in prostate cancer tissue using a machine learning system on gene expression data. *BMC bioinformatics*, 21(2), 1-10.
3. Hamzeh, O., Alkhateeb, A., **Zheng, J. Z.**, Kandalam, S., Leung, C., Atikukke, G., Cavallo-Medved, D., Palanisamy, N., & Rueda, L. (2019). A hierarchical machine learning model to discover Gleason grade-specific biomarkers in prostate cancer. *Diagnostics*, 9(4), 219.
4. **Zheng, J. Z.**, Li, Y., Lin, T., Estrada, A., Lu, X., and Feng, C. (2017). Sample size calculations for comparing groups with continuous outcomes. *Shanghai Arch Psychiatry,* **29**(4): 250-256.
5. Xu, M., Fralick, D., **Zheng, J. Z.**, Wang, B., Tu, X. M., and Feng, C. (2017). The differences and similarities between two-sample t-test and paired t-test. *Shanghai Arch Psychiatry*, **29**(3): 184-188.
6. Wang, H., Peng, J., Wang, B., Lu, X., **Zheng, J. Z.**, Wang, K., Tu, X. M., and Feng, C. (2017). Inconsistency between univariate and multiple logistic regressions. *Shanghai Arch Psychiatry*, **29**(2): 124-128.
7. Wang, H., Peng, J., **Zheng, J. Z**., Wang, B., Lu, X., Chen, C., Tu, X. M., and Feng, C. (2017). Win ratio - An intuitive and easy-to-Interpret composite outcome in medical studies. *Shanghai Arch Psychiatry*, **29**(1): 55-60.
8. Feng, G., Peng, J., Tu, D., **Zheng, J. Z**., and Feng, C. (2016). Two paradoxes in linear regression analysis. *Shanghai Arch Psychiatry*, **28**(6): 356-360.
9. Wang, H., Peng, J., **Zheng, J. Z**., Wang, B., Tu, J. X., and Feng, C. (2016). Does more data mean higher efficiency? An experience from pre- and post-treatment study with missing data. *Shanghai Arch Psychiatry,* **28**(4): 235-240.

**Conference presentations**

1. Zheng, J. (2021). "Species tree accuracy impacts codivergence analysis", *Virtual Evolution 2021*, June 21-25, 2021. 6 min. Jun 17, 2021
2. Zheng, J. (2021). "Species tree accuracy impacts codivergence analysis", *Virtual Midwest Ecology and Evolution Conference 2021*, March 20-21, 2021. 12 min. Mar 20, 2021

## Professional Experience

**Research Assistant** to Dr. K. Liu Aug 2019 - Current
*Department of Computer Science and Engineering, Michigan State University*

- Co-authored manuscripts with colleagues
- Conducted performance studies on inferring co-phylogenetic trees
- Replicated experiments from published papers

**Software Engineer Intern** Apr - Aug 2019
*RetiVue, LLC*
- Wrote C# code to interface DICOM database and user interface Orthanc with native RetiVue applications
- Investigated data security within local area networks

**Research Assistant** to Dr. L. Rueda May 2018 - Apr 2019
*School of Computer Science, University of Windsor*
- Semi-automated the process of extracting prostate cancer data from CBioPortal and performed data pre-processing
- Co-authored 2 manuscripts and poster presentation on applying machine learning to predict prostate cancer from imaging and medical histories

**IT Student Consultant** May 2017 - Apr 2019
Leddy Library, University of Windsor
- Resolved IT issues, troubleshooted machines, and documented abnormalities into internal software

## GRANTS AND AWARDS

**NSF Research Traineeship IMPACTS Fellowship** 2022-2023
*Michigan State University and the NSF Research Traineeship Program (DGE-1828149)*
**Summer Fellowship in Ecology, Evolution, and Behavior** 2022
*Michigan State University*
**Summer Fellowship in Computer Science & Engineering** 2022
*Michigan State University*
**Summer Fellowship in Ecology, Evolution, and Behavior** 2021
*Michigan State University*
**BEACON Science and Technology Center Top Up Fellowship** 2019 - 2024
*Michigan State University*
**Student Consultant Outstanding Service Award** May 2019
*University of Windsor*
**Dean's List** 2019
*University of Windsor*

## OUTREACH & VOLUNTEERING

**Mentor** to 2 undergraduate students May - Aug 2021
*Distributed Research Experiences for Undergraduates*
**Reviewer** May 2021
*ACM Conference on Bioinformatics, Computational Biology, and Health Informatics*
**Mentor** at Girls Who Code 2020 - Current
*MSU Women in Engineering*
**Copy Editor** 2016 - Current
*International Journal of Librarianship*

## PROFESSIONAL AFFILIATIONS

**Member,** *Society for the Study of Evolution* 2019 - Current
**Member,** *Association for Computing Machinery* 2020 - Current
**Member,** *International Society for Computational Biology* 2018 - Current