SHAYNE SKRTIC

skrticshayne@gmail.com | (216)-973-8060 | linkedin.com/in/shayne-skrtic-218b41254

Education

Xavier University
Expected Graduation of May 2026
Bachelor of Science: Biology
Computer Science Minor
Chemistry Minor

Professional Summary

I am a graduating undergraduate passionate about research, problem-solving, and collaboration, with experience in bioinformatics, computational biochemistry, and laboratory experimentation. My work spans machine learning, data analysis, and hands-on benchwork, strengthening my ability to extract meaningful biological insights. Pursuing a PhD, I aim to advance computational and systems biology through innovative research at the intersection of biology and technology.

Scientific Publications

"COSMIC Database and Structural Modeling Analysis of CYP2D6 Mutations in Human Cancers" (2024). Kuchinski K, King N, Driggers J, Lawson K, Vo M, **Skrtic S**, Slattery C, Lane R, Simone E, Mills S, Escorcia W, Wetzel H. *Journal of Pharmacology and Experimental Therapeutics*

"Measuring Cell Dimensions in Fission Yeast Using Machine Learning" (2024). **Skrtic S** and Lawson K, Vo M, Escorcia W. *Methods in Molecular Biology*

Relevant Experience

Quality Assurance Microbiologist - Q Laboratories
February 2025 - Present
1930 Radcliff Dr
Cincinnati, OH

- Performed, Analyzed, Validated, and approved microbiological techniques.

- Communicated with leadership to ensure adherence to USDA and FDA guidelines
- Found innovative ways to streamline processes and improve efficiency.

Biological Researcher - Escorcia/Wetzel Lab
August 2023 - Present
3800 Victory Pkwy, Cincinnati, OH 45207
Cincinnati, OH

- Conducted molecular dynamics simulations using tools like AlphaFold and Gromacs to study protein/Drug interaction changes in cancer associated genes
- Developed a comprehensive user-friendly data analysis pipeline for lab researchers using programming languages like Python and Java
- Applied my Interdisciplinary biology and computer science knowledge to contribute to cancer research

Software Development Intern - OakVar Bioinformatics
January 2024 - January 2025

- Developed and maintained bioinformatics software and tools, enhancing the analysis capabilities for genomic data
- Collaborated with a team of biologists and software engineers to design and implement new features for existing genomic annotation applications, focusing on usability and performance enhancements.
- Conducted comprehensive testing and debugging of bioinformatics applications, contributing to an increased reliability for critical research projects.

Biological Researcher - Engle Lab
January 2023 - August 2023
3800 Victory Pkwy, Cincinnati, OH 45207
Cincinnati, OH

- Designed, executed, and interpreted results of experiments with a high degree of accuracy and precision.
- Utilized Genetic Bioinformatic tools to investigate and interpret Lab data

Hourly Manager - Dewey's Pizza
February 2019 - January 2025
18516 Detroit Ave
Lakewood, OH

- Managed a team of up to 12 Cooks
- Participated in day to day operations such as ordering, hiring, and inventory counts
- Took a role as a team leader and efficiently worked with my staff to have successful service

Skills

Python | Java | R | HTML | CSS | Power Bi | Fluorescent Microscopy | Bioinformatics | Molecular Dynamics Packages | PCR | qRT-PCR | Organization | Time Management | Microsoft Office Suite | PPE| Plasmid vectors | Affinity chromatography | Enzyme activity assays | CRISPR Cas9 | LIMS | Excel Macros | Quality Assurance | GDP | GMP | Monolix | LIMS | JIRA

Posters

Title: "Comparison of Foldit Calculated Stability with Experimentally Determined Energy Values of Cytochrome C Mutants"
Authors: Julia Driggers, Brennan Cull, **Shayne Skrtic**, Dr. Justin Link*, Dr. Stephen Mills*
Presented At: American Chemical Society Spring Meeting, 2024
Details: Showcased research comparing computational predictions of protein stability with actual experimental data for Cytochrome C mutants, highlighting potential for improving accuracy of computational biology tools.

Title: “Unraveling the Role of MAF1 Mutations in Accelerating Aging"
Authors: **Shayne Skrtic**, Sofia Franco, Wilber Escorcia*
Presenting At: Midwest Aging Consortium Spring Meeting, 2024
Details: Showcased research detailing the impact of MAF1 gene mutations on cellular aging and cancer risk, consolidating key findings and innovative methodologies

Title: “Expression, Purification, and Functional Characterization of the Hydrolase Enzyme 2O14"
Authors: **Shayne Skrtic,** Jennah Hayes, Alyssa Johnson, Erin Linko, Matthew Liskai, Nate Mazza, Deja Rhodes, Carley Ryan, Lauren VanMieghem, and Dr. Ellie Gagliani*
Presenting At: Xavier Research Symposium Spring Meeting, 2024
Details: Showcased research characterizing the function of an unknown putative hydrolase.