

Shaan Pakala

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[Google Scholar](#), [LinkedIn](#) & [GitHub](#)

About

I am a 1st year Computer Science Ph.D. student at the University of California, Riverside. I work on machine learning research problems with Professor [Vagelis Papalexakis](#). Currently, we explore interdisciplinary research applications of tensor decomposition, mainly for the surrogate modeling of combinatorial problems. I am also a summer intern at the Lawrence Livermore National Laboratory (LLNL) [Data Science Institute](#), where we use statistical modeling, causal learning, and machine learning in healthcare applications.

Education

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| Ph.D. in Computer Science
<i>University of California, Riverside</i>
· Advisor: Prof. Vagelis Papalexakis | Starting Sept. 2025 |
| B.S. in Data Science & Engineering
<i>University of California, Riverside</i>
· Upper Division GPA: 3.9 | Sept. 2021 – June 2025 |

Research Experience

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| Data Science Research Intern
<i>Lawrence Livermore National Laboratory</i>
· Worked in predictive healthcare group in collaboration with clinicians/neuroscientists from Stanford | June 2025 – Present |
| Data Science Research Assistant
<i>University of California, Riverside</i>
· Worked on AI for Science applications of tensor decomposition, with Professor Papalexakis [2, 3] | Sept. 2024 – Present |
| NSF REU Research Intern
<i>University of California, Riverside</i>
· Worked with Professors Papalexakis, Tsotras, and Chen on surrogate modeling to efficiently design optimal data science pipelines (e.g. SQL, hyperparameter tuning) [1] | June 2024 – Sept. 2024 |
| Bioinformatics Research Assistant
<i>University of California, Riverside</i>
· Worked with Professor Lonardi on using Machine Learning for protein sequence analysis | March 2024 – Dec. 2024 |

Papers

Conference

[1] [Shaan Pakala](#), B. Graw, D. Ahn, T. Dinh, M. T. Mahin, V. Tsotras, J. Chen, E. Papalexakis, “Automating Data Science Pipelines with Tensor Completion,” *IEEE International Conference on Big Data* (2024). **Received Student Travel Award.** [\[Link\]](#) [\[PDF\]](#) [\[Code\]](#)

Workshop

[2] [Shaan Pakala](#), D. Ahn, E. Papalexakis, “Tensor Completion for Surrogate Modeling of Material Property Prediction,” *AAAI Bridge on Knowledge-Guided Machine Learning* (2025). [\[PDF\]](#)

[3] P. Goulart*, [Shaan Pakala](#)*, E. Papalexakis, “Efficiently Generating Multidimensional Calorimeter Data with Tensor Decomposition Parameterization,” *ICCV Workshop on Representation Learning with Very Limited Resources* (2025). [\[PDF\]](#)

* denotes equal contribution

Awards

Undergraduate Research Spotlight <i>Bourns College of Engineering (University of California, Riverside)</i>	2025
Student Travel Award <i>IEEE International Conference on Big Data</i>	2024
Chancellor’s Honor List <i>University of California, Riverside</i>	2023 – 2024

Other Experience

Computer Science Grader <i>University of California, Riverside</i>	March 2024 – June 2024
Data Science Challenge <i>Lawrence Livermore National Laboratory</i>	July 2023
Data Science Camp Mentor <i>Spotline, Inc.</i>	July 2022 – Sept. 2022