

CHRISTINA JOSLIN

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EDUCATION

Princeton University – Princeton, New Jersey	September 2026 – May 2030 (<i>Expected</i>)
Doctor of Philosophy in Operations Research and Financial Engineering	
Purdue University – West Lafayette, Indiana	August 2022 – May 2026
Dual B.S. Degrees in Data Science and Applied Statistics with Highest Distinction	
GPA: 3.99/4.00	
Relevant Coursework: Statistical Theory, Probability, Data Mining and Machine Learning, Linear Algebra, Discrete Mathematics, Vector Calculus, Data Structures and Algorithms	

RESEARCH INTERESTS

High-dimensional statistics, machine learning, optimization, and applications to foundation models

PUBLICATIONS

- Joslin, C.**, Burns, D., Ashish, A., & Barezi, E. J. (2025, November). Generating Frequently Asked Questions from Technical Support Tickets using Large Language Models. *Proceedings of the SC '25 Workshops of the International Conference for High Performance Computing, Networking, Storage, and Analysis* (pp. 715-726). Association for Computing Machinery. <https://doi.org/10.1145/3731599.3767429>
- Krause Moras, B. C., **Joslin, C.**, & Gkritza, K. (2025, October). Used or new electric vehicles? Public preferences and market segments. *International Journal of Sustainable Transportation*, 1-14. <https://doi.org/10.1080/15568318.2025.2572827>

RESEARCH EXPERIENCE

Rosen Center for Advanced Computing, Purdue University	May 2025 – May 2026
<i>Undergraduate Research Assistant, Anvil REU/CI-XP</i>	
- Developed an end-to-end FAQ-generation pipeline using QLoRA-based LLM fine-tuning, semantic clustering, and prompt engineering on 6,000+ HPC support tickets; work resulted in a first-author paper in the SC '25 Workshops proceedings. - Fine-tuned an LLM using LoRA on Purdue's Gilbreth compute cluster with 3,000+ CS 251: Data Structures and Algorithms question-answer pairs to build an automated practice question generation pipeline in collaboration with Assistant Professor Bejarano Posada. - Led technical workshops on PyTorch, TensorFlow, model compression, and quantization for researchers. - Mentored an industrial engineering senior capstone project team developing an intelligent forecasting layer for HPC support demand and ticket escalation.	
Sustainable Transportation Systems Research Group, Purdue University	January 2024 – May 2025
<i>Undergraduate Research Assistant</i>	
Advisor: Professor Nadia Gkritza Graduate Mentor: Dr. Bruno Cesar Krause Moras	
- Analyzed survey responses from 2,000 Indiana residents to study demographic and experiential drivers of electric-vehicle perceptions, including charging accessibility, range anxiety, and cost concerns. - Applied ordinal logistic regression, cumulative mixed models, latent class analysis, principal component analysis, and chi-squared tests in R; findings contributed to a peer-reviewed article in the <i>International Journal of Sustainable Transportation</i>.	
The Data Mine Corporate Partners Program, Purdue University	January 2023 – December 2023
<i>Undergraduate Data Science Researcher</i>	
- Collaborated with BASF to analyze 10,000+ climate and agricultural observations supporting forecasts for the 2024 corn and soybean growing season across Iowa, Indiana, and Illinois. - Partnered with Inogen, Inc. to analyze telemetry from 1,000+ portable oxygen concentrators, examining device usage, patient behavior, and environmental influences.	

PROFESSIONAL AFFILIATIONS

• Sigma Xi: The Scientific Research Honor Society, Associate Member	July 2026 – Present
• The Phi Beta Kappa Society, Member	April 2026 – Present
• Association for Computing Machinery (ACM), Student Member	June 2025 – Present

PRESENTATIONS

Joslin, C., Burns, D., & Ashish, A. (2025, July 28-August 1). *Transforming technical support with artificial intelligence: Structured question generation from support tickets* [Virtual presentation]. Purdue Summer Undergraduate Research Conference, West Lafayette, Indiana.

Joslin, C., Krause Moras, B. C., & Gkritza, K. (2025, April 8). *Preference for charging station venues: A comparison between electric vehicle users and non-electric vehicle users* [Poster presentation]. Purdue Undergraduate Research Conference, West Lafayette, Indiana.

Krause Moras, B. C., **Joslin, C.,** & Gkritza, K. (2025, January 6). *Used or new? Investigating consumer preferences in the electric vehicle market* [Poster presentation, TRBAM-25-02448]. Transportation Research Board Annual Meeting, Washington, DC.

Joslin, C., Krause Moras, B.C., & Gkritza, K. (2024, September 21-22). *Does experience change perceptions? Comparing users' and non-users' opinions on electric vehicle characteristics* [Poster presentation]. 4th Annual NEXT-Generation Transport Systems Conference, West Lafayette, Indiana.

TEACHING EXPERIENCE

The Data Mine Corporate Partners Program, Purdue University January 2024 – December 2024
Corporate Partners Teaching Assistant – CAT Digital-Sponsored Projects

- Mentored 10–20 undergraduate and graduate students across two CAT Digital-sponsored projects, facilitating twice-weekly meetings, evaluating sprint deliverables, and guiding Agile/Scrum workflows and technical problem-solving.
- Spring 2024 (EV Charging Operations): Guided the design of a fleet-management application for monitoring battery status, locating charging stations, and estimating charging times for CAT electric machines; work contributed to **U.S. Provisional Patent Application No. 63/637,725, titled “Methods and Systems for Charging Electric Machines with On-site Mobile Charging Stations.”**
- Fall 2024 (LLM-Powered Data Dashboard): Mentored the development of a dashboard integrating an LLM-powered chatbot for automated data retrieval, preprocessing, visualization, and sensor-analytics question answering.

Department of Computer Science, Purdue University August 2023 – December 2023
Undergraduate Teaching Assistant – CS 180: Problem Solving and Object-Oriented Programming

- Led two weekly Java laboratory sections and weekly office hours, assisting students with debugging, programming assignments, and foundational object-oriented programming concepts.

HONORS AND AWARDS

Outstanding Senior in Statistics April 2026
Purdue University Department of Statistics
Faculty-selected award recognizing the department’s top graduating senior for excellence in academics, research, and leadership.

Best Poster Award September 2024
4th Annual NEXT-Generation Transport Systems Conference (NGTS-4)
Selected from among graduate and undergraduate student presenters for research examining how prior EV experience influences perceptions of cost, reliability, and lifecycle benefits.

Stamps Scholar March 2022 – May 2026
Stamps Family Charitable Foundation
Four-year, full-tuition merit scholarship with enrichment funding recognizing academic excellence, leadership, and service.

PROGRAMMING SKILLS

Languages: Python, R, SQL, SAS, Java

Frameworks & Libraries: PyTorch, TensorFlow, Hugging Face, Unsloth, scikit-learn, Pandas, NumPy, LangChain, Streamlit

Research Computing & Development Tools: Git, SLURM, Bash, LaTeX

Certifications: SAS Base Programmer (SAS, 2025), Deep Learning and Machine Learning Specializations (Coursera, 2024)

ADDITIONAL SKILLS

Foreign Language Proficiency: Spanish (Working proficiency in reading, writing, speaking)

Activities: Avid runner, swimmer, and tennis player; second-place female finisher in the 2023 Purdue Half Marathon