

CHRISTINA JOSLIN



EDUCATION

Purdue University – West Lafayette, IN

Graduation Date: May 2026

Bachelor of Science in Data Science and Applied Statistics

Dean's List and Semester Honors (Fall 2022, Spring 2023, Fall 2023, Spring 2024, Fall 2024),

Phi Kappa Phi Honor Society, John Martinson Honors College, The Data Mine Corporate Partners Program

Relevant Coursework:

- **Completed:** CS 242 – Introduction to Data Science, STAT 355 – Statistics for Data Science, MA 351 – Elementary Linear Algebra, STAT 416 – Probability, STAT 417 – Statistical Theory, CS 38003 – Python Programming, PHIL 208 – Ethics of Data Science, CS 182 – Foundations of Computer Science, CS 180 – Object-Oriented Programming, MA 261 Multivariate Calculus, MA 162 – Plane Analytic Geometry and Calculus II
- **Spring 2025:** STAT 512 – Applied Regression Analysis, STAT 506 – Statistical Programming, CS 253 – Data Structures and Algorithms for DS/AI Majors

HONORS, AWARDS, SCHOLARSHIPS

Best Poster Award

September 2024

Issued by 4th Annual NEXT-Generation Transport Systems Conference (NGTS-4)

Joslin, C. (2024, September 21-22). *Does Experience Change Perceptions? Comparing Users' and Non-Users' Opinions on Electric Vehicle (EV) Characteristics* [Poster presentation] 4th Annual NEXT-Generation Transport Systems Conference, West Lafayette, Indiana, United States.

https://nextranspurdue.wixsite.com/ngts2024?_ga=2.264231880.533822719.1731629704-1973373041.1714559774

Selected from among graduate and undergraduate student presenters for my research poster titled, "Does Experience Change Perceptions? Comparing Users' and Non-Users' Opinions on Electric Vehicle (EV) Characteristics". My research used descriptive analysis and chi-squared tests on survey data to compare EV users' and non-users' perceptions of 13 EV characteristics, revealing that experience with EVs leads to more favorable views on long-term costs, reliability, and lifecycle benefits, informing targeted policy recommendations for increasing EV adoption.

Recipient of Stamps Scholarship

March 2022

Issued by Stamps Family Charitable Foundation Inc.,

Stamps Scholar at Purdue University, awarded a competitive four-year, full-tuition scholarship with \$10,000 in enrichment funds for academic pursuits, selected from over 250,000 applicants based on leadership, academic excellence, and community service.

PUBLICATIONS

Used or New? Investigating Consumer Preferences in the Electric Vehicle Market January – September 2024

Krause, B., Joslin, C., & Gkriza, N. (2025, January 5-9). *Used or New? Investigating Consumer Preferences in the Electric Vehicle Market*. [Conference session]. Transportation Research Board Annual Meeting, Washington, D.C., United States. <https://annualmeeting.mytrb.org/OnlineProgram/Details/23152>

- The paper has been accepted for presentation at the Transportation Research Board Annual Meeting 2025 (TRBAM-25-02448).

Societal Equity in the Protection of Personally Identifiable Information October - December 2023

Joslin, C., Brideweser, T., Gujral, D., Goel, P., Wu, A. (2023). *Societal Equity in the Protection of Personally Identifiable Information* [Unpublished manuscript]. Department of Philosophy, Purdue University.

- Was the lead student researcher under Principal Investigator Assistant Professor JP Messina, Ph.D. in the PHIL 208 Ethics of Data Science course
- Administered an online survey to a random sample of 3000 Purdue students which I coordinated through the Purdue *Institutional Review Board* (IRB) and the Purdue *Institutional Data Analytics + Assessment* (IDA+A) on the various aspects of PII, such as their demographic information (i.e., sex, race, education level, and age), their knowledge of PII, the types of PII breaches they have experienced, the impact of these breaches, and any resolutions that were implemented.
- Designed the survey questions, wrote proposals to the IRB and IDA+A, conducted a literature review of previous studies, and performed a comparative analysis to assess the significance of our survey results for determining where to focus mitigation education and resources.

CERTIFICATIONS AND RESEARCH EXPERIENCE

Deep Learning Specialization Certification November – December 2024

DeepLearning.AI, Coursera

- Completed the five-course Coursera Deep Learning Specialization by DeepLearning.AI
- Gained a strong foundation in neural network architectures, including CNNs, RNNs, LSTMs, and Transformers, and techniques such as hyperparameter tuning, mathematical optimization, Dropout, BatchNorm, and Xavier Initialization.
- Applied these concepts to real-world use cases, including speech recognition, natural language processing (NLP), and music synthesis.

Machine Learning Specialization Certification

September - October 2024

DeepLearning.AI and Stanford University, Coursera

- Completed the three-course Coursera Machine Learning Specialization by DeepLearning.AI and Stanford University
- Gained expertise in modern machine learning concepts, including supervised learning (regression, classification, neural networks, decision trees), unsupervised learning (clustering, anomaly detection), recommender systems, and reinforcement learning.

Undergraduate Research Assistant

January 2024 -present

Lyles School of Civil Engineering, Purdue University, West Lafayette, IN

- Currently, I am an undergraduate research assistant and mentee under Ph.D. student Bruno Cesar Krause Moras in the Sustainable Transportation Systems Research Group at the Lyles School of Civil Engineering, working under the guidance of Dr. Nadia Gkritza, Professor of Civil Engineering and Agricultural and Biological Engineering.
- My research focuses on the sociodemographic characteristics and prior experiences of Indiana residents with electric vehicles (EVs) and their evolving perceptions of this technology. Key factors include charging station accessibility, EV driving range, and cost comparisons with non-EVs. I analyze survey data collected by the research group (June–July 2023) using advanced methods such as multivariate ordinal logistic regression, principal component analysis, cumulative mixed-method models, chi-squared tests, latent class analysis, and descriptive statistics in RStudio.

Corporate Partners Teaching Assistant

January – December 2024

The Data Mine, Purdue University, West Lafayette, IN

- Served as a TA for two corporate-sponsored projects with CAT Digital, guiding 10–20 undergraduate and graduate students in applying Scrum Agile methodology to deliver innovative solutions.
- Responsibilities included facilitating semiweekly meetings, providing mentorship, and collaborating with CAT Digital mentors to develop, review, and refine project deliverables.
- Spring 2024 semester (EV Charging Operations) - Led a team to design an app for fleet managers of CAT electric machines, enabling them to monitor battery charging status, locate nearby charging stations, and estimate charge times. **This project has filed for a provisional patent through the U.S. Patent and Trademark Office in April 2024 (Application No. 63/637,725) titled “Methods and Systems for Charging Electric Machines with On-site Mobile Charging Stations.”**
- Fall 2024 semester (LLM-Powered Data Dashboard) – Guided a team in developing a data dashboard with an integrated chatbot for enhanced data mining and analysis. The chatbot will automate tasks such as retrieving, preprocessing, and visualizing sensor data, as well as summarizing and answering data-related queries, streamlining workflows and reducing complexity.

CS 180 Undergraduate Teaching Assistant

August 2023 - December 2023

Computer Science Department, Purdue University, West Lafayette, IN

- Worked as an undergraduate teaching assistant for CS 180: Introduction to Problem Solving and Object-Oriented Programming, the first programming course for freshman DS, CS, and AI students at Purdue University.
- I conducted two labs each week and assisted students through the walkthrough, debugging, and challenge portions of their assigned homework. Additionally, I held weekly office hours to provide students with additional support on the course material.

Undergraduate Data Science Researcher

January 2023 -December 2023

The Data Mine, Purdue University, West Lafayette, IN

- Spring 2023 semester- Collaborated with BASF to predict the start of the 2024 crop season for corn and soybean in Iowa, Indiana, and Illinois. Utilized data scraping tools and data visualization techniques to analyze climate data.
- Fall 2023 semester- Worked with Inogen Inc. to perform an analysis of portable oxygen concentrators. and other medical equipment data to build predictive models for device usage, patient behavior, and environmental factors using techniques in data wrangling, data visualization, deep learning, and database management with Python.

PROGRAMMING SKILLS

Languages: Python (Advanced), R (Advanced), Java (Intermediate), SQL (Beginner), Bash (Beginner)**Libraries (Python):** Pandas, NumPy, Scikit-Learn, TensorFlow, HuggingFace**ADDITIONAL SKILLS**

Foreign Language Proficiency: Spanish (Intermediate Level - speaking, reading, writing)