MAXIM LAVRENKO

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EDUCATION

Purdue University *August 2022 - May 2026*
B.S. & M.S. in Computer Science, Machine Learning Track GPA: 4.0/4.0
B.S. in Mathematics GPA: 4.0/4.0
Overall CGPA: 3.99/4.0
Accelerated 3+1 Program *Start Graduate Studies: August 2025*
Dean's List & Semester Honors *August 2022 - Present*

WORK EXPERIENCE

Teaching Assistant — CS 381, CS 251, CS 250, CS 182 January 2024 - Present
Purdue University, Department of Computer Science

- Algorithms (CS 381), Data Structures (CS 251), Computer Architecture (CS 250), Discrete Mathematics (CS 182)
- Conducted grading, held office hours, facilitated labs, and led collaborative sessions.
- Enhanced student comprehension and provided detailed feedback on assignments.

Community Assistant May 2024 - August 2024
Purdue University, University Residences

- Managed check-in and check-out procedures for over 100 attendees, ensuring a smooth transition.
- Handled emergency situations with priority, demonstrating capability in crisis management and quick decision-making.
- Provided high-level customer service, including the distribution and management of equipment, keys, and mail.

COURSEWORK

Computer Science Machine Learning, Statistical Machine Learning, Deep Learning, Natural Language Processing, Advanced Algorithms, Data Structures, Artificial Intelligence
Mathematics Linear Algebra 1 & 2, Multivariable Calculus, Differential Equations, Probability Theory

PROJECTS

Machine Learning Projects | Python, scikit-learn, TensorFlow August 2024 - Present

- Developed a variety of machine learning models, like kNN, linear regression, decision trees, and neural networks.
- Applied models to real-world datasets, such as the Iris dataset and the MNIST dataset.
- Utilized scikit-learn and TensorFlow to implement models and evaluate their performance.

MLE vs MAP Simulation Project | Python, NumPy, Matplotlib August 2024

- Developed a simulation to compare MLE and MAP methods in estimating the bias of a coin.
- Demonstrated statistical model differences and efficiencies using Python, NumPy, and Matplotlib.
- Created an interactive script for dynamic simulation parameter adjustments.

Better Housing Bot | Python, Discord.py, BeautifulSoup December 2023

- Created a Discord bot to streamline the search for on-campus housing at Purdue University.
- Implemented real-time dorm and apartment availability tracking through web scraping.
- Features included automatic updates, a notification mute function, and on-demand checks.
- Assisted several users in securing convenient on-campus housing, avoiding costlier alternatives.

LaTeX Matrix Calculator Website | Flask, numpy, React, Heroku June - July 2023

- Engineered a web application for LaTeX users to manage matrices and linear algebra operations.
- Provided LaTeX code generation for matrix operations, using Flask and React.
- Deployed on Heroku, optimizing for usability and access (currently inactive due to hosting costs).

TECHNICAL STRENGTHS

Programming Languages Python, C++, C, Java, R
Machine Learning TensorFlow, scikit-learn, PyTorch, Keras, pandas, NumPy
Web Technologies Node.js, React.js, HTML5, CSS
Databases SQL, PostgreSQL, MongoDB
Other Tools Git, LaTeX, Jupyter Notebook, Docker, Linux, Bash