

MAKSIM LAVRENKO

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EDUCATION

Purdue University

B.S. in Computer Science & Mathematics
M.S. in Computer Science

GPA: 3.99/4.0 August 2022 - May 2025
August 2024 - May 2026

WORK EXPERIENCE

Teaching Assistant — CS 381, CS 251, CS 250, CS 182

January 2024 - Present

Purdue University, Department of Computer Science

- Formulated and articulated complex concepts in Algorithms, Data Structures, Computer Architecture, and Discrete Mathematics, enhancing the instructional approach.
- 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.

PROJECTS

Machine Learning Projects | Python, scikit-learn, TensorFlow

August 2024 - Present

- Developed a variety of machine learning models, such as 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).

COURSEWORK

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

TECHNICAL STRENGTHS

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