

# MAXIM LAVRENKO

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## EDUCATION

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### Purdue University

B.S. & M.S. in Computer Science, Machine Learning Track  
B.S. in Mathematics

August 2022 - May 2026

GPA: 4.0/4.0

GPA: 4.0/4.0

Overall CGPA: 3.99/4.0

Accelerated 3+1 Program

Dean's List & Semester Honors

Start Graduate Studies: August 2025

August 2022 - Present

## WORK EXPERIENCE

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### Teaching Assistant

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

- Worked as a Community Assistant, providing direct customer service and ensuring successful program activities.
- Demonstrated reliability, organization, and flexibility while managing various tasks in a fast-paced environment.

## COURSEWORK

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### 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

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### Machine Learning Projects | Python, scikit-learn, TensorFlow

August 2022 - 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.

### 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).

## INVOLVEMENT

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### BoilerMake Hackathon X

January 2022

- Developed a pollution trend visualization map using plotly, pandas, and HTML in a 36-hour challenge.

### BoilerMake Hackathon XI

January 2023

- Created a web application for enhanced chat experiences, utilizing React, TypeScript, and Go.

### Problem Solving

August 2023 - Present

- Solved 650+ problems on LeetCode using Python and C++.

## TECHNICAL STRENGTHS

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### Programming Languages

Python, C++, C, Java, R

### Machine Learning

TensorFlow, scikit-learn, PyTorch, Keras, pandas

### Web Technologies

Node.js, React.js, HTML5, CSS

### Databases

SQL, PostgreSQL, MongoDB