

# Srivarshini Pentapati

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## Technical Skills:

- **Languages:** Python, Java, HTML
- **Tools:** VS Code, Eclipse, Git, Jupyter Notebooks, WIX Editor
- **Java:** Inheritance, Java Collection Framework, Threads, Synchronization, Exceptions, Object-Oriented Programming (OOP), Design Patterns
- **Software Development:** Object-oriented software development, designing objects & classes, testing & code coverage

## Machine Learning Skills:

- **Data Analysis:** Data Cleaning, Exploratory Data Analysis (EDA), Feature Engineering, Data Visualization, Outlier Handling
- **Machine Learning Algorithms:** Supervised Learning, Unsupervised Learning, Encoder, Regression, Classification, Clustering, Dimensionality Reduction, Reinforcement Learning techniques, Ensemble Methods
- **Model Creation and Evaluation:** Model training, Model Validation/Testing
- **Frameworks:** JUnit, Scikit-learn, NumPy, Matplotlib, Pandas, Seaborn

## Education:

- **University of Maryland**

Bachelor of Science in Computer Science  
Expected Graduation: December 2026  
GPA: 3.5

Relevant Coursework: Advanced Java (OOP), Discrete Structures, Calculus I & II, Statistics

- **Northwest High School**

Graduated: 2023  
GPA: 3.9

## Certifications:

- Harvard CS50 Artificial Intelligence with Python

## Projects:

### AI Projects

*Harvard University*

- **Tic-Tac-Toe:** Implemented the minimax algorithm to create an AI that plays against the user, attempting to find the best possible move.
- **Knights:** Solved Knights and Knaves logic puzzles using propositional logic to tackle given problems.
- **Nim:** Used reinforcement learning to play the game of Nim, training over 1000 games to develop a highly effective strategy that wins almost every game against the player

- **Crossword:** Created an AI to automatically generate crossword puzzles. Developed algorithms to ensure that generated crosswords are both challenging and solvable.
- **Parser:** Built a natural language parser to interpret and process sentences. Implemented parsing algorithms to understand and derive meaning from textual data.

## Object-Oriented Programming Projects

*University of Maryland*

- **Student Performance Submission System (SPSS):** Developed classes related to the SPSS system for managing student submissions and performing data analysis. Implemented methods for adding students and submissions, reading submissions concurrently from files, calculating scores, determining satisfactory grades, and identifying students eligible for extra credit.

## Experience:

### Intern

*E-industries*

January 2023 – May 2023

- **Research and Analysis:** Conducted comprehensive research on various school websites to gather insights on design, content, and functionality. Analyzed collected data to identify best practices and areas for improvement.
- **Website Development:** Developed a partial website using the WIX editor, incorporating researched elements to enhance user experience and visual appeal. Ensured the website met accessibility standards and was optimized for mobile devices.
- **Collaboration:** Worked closely with the design and marketing teams to align the website's aesthetics and functionality with the company's branding and marketing goals. Provided technical support and troubleshooting assistance as needed.
- **Project Management:** Managed project timelines and deliverables to ensure timely completion. Utilized project management tools to track progress and report updates to supervisors.
- **Technical Documentation:** Created detailed documentation outlining the research process, findings, and implementation steps. Developed user guides and technical manuals for future reference.

### Freelance Tutor

*Self-Employed*

June 2022 – August, 2022

- Provided tutoring for middle and high schoolers in subjects including Java, Python
- Developed customized lesson plans and materials to enhance student understanding.