

Sehar Panesar

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Junior at Purdue University pursuing the BS/MS program in Computer Science. I love working hard on my own projects and learning more about Computer Science.

EDUCATION

Graduated 06/2019	Homestead High School – Cupertino, CA <ul style="list-style-type: none">GPA: 3.95/4
Will graduate 12/2022	B.S. in Computer Science , Purdue University – West Lafayette, IN <ul style="list-style-type: none">GPA: 3.82/4Relevant courses: Natural Language Processing, Analysis of Algorithms, Data Mining and Machine Learning, Data Structures and Algorithms, Systems Programming, Calculus, Linear AlgebraMember of Alpha Kappa Psi, the nation's leading business fraternityDean's List & Semester Honors for all semesters
Will graduate 12/2023	M.S. in Computer Science , Purdue University – West Lafayette, IN

SKILLS

- Experience with Java, C, Python, and Unix.
- Familiar with ML Libraries TensorFlow and Scikit-learn
- Strong understanding of data structures and algorithms.
- Fluent in English.
- Can read, write, and speak Spanish.
- Can understand and speak Hindi.
- Fast learner – I am able to quickly adapt to different work styles / techniques.
- Avid problem solver – I am eager to work out a problem to its completion.

PERSONAL PROJECTS

All of these projects can be viewed on <https://github.com/seharpanesar>. I am happy to present these projects at an interview:

- Chess Engine (Java)**: Used the Java Swing GUI and the minimax algorithm to build a chess AI application that is able to evaluate a chess position and play favorable moves against the user. To test it, I played it against Stockfish, the world's premier chess engine. Stockfish has 8 levels, 1 being lowest and 8 being highest. It was able to beat level 4. Some optimizations include alpha beta pruning (removal of branches in search tree, given that opponent plays good moves), move ordering (to optimize pruning), and the use of bitboards (to store data efficiently).
- KenKen solver (Java)**: Used the Java Swing Library and the DFS algorithm to solve any n-by-n KenKen. KenKen is an arithmetic and logic puzzle similar to, but more complex than Sudoku.
- Blackjack Winnings (Java)**: Built a Java program that simulates and analyzes Blackjack winnings using basic Blackjack strategy. The betting amount, bankroll, number of rounds are customizable, allowing for deeper analysis.
- The Game of NIM (Java)**: Solved the [Problem of the Week #90 of Harvard Physics Department](#) by coding a game and the perfect rival AI in Java.