VENKAT GURU PRASAD

Aspiring Software Engineer
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EDUCATION

TORONTO METROPOLITAN (FORMERLY RYERSON) UNIVERSITY Toronto, ON
Bachelor of Engineering in Computer Software Engineering Exp. 04/2025
GPA: 3.67/4.33, Honours: Dean's List
Coursework: Data Structures and Algorithms, Object Oriented Programming, Software Design Patterns, Digital Logic, Digital and Microprocessor Systems, Probability and Stochastic Processes, Database Systems, and Operating Systems

TECHNICAL SKILLS

- Languages: Python, Java, C, HTML, CSS, JavaScript
- Technologies: Django, Bootstrap, SQL, Git
- Certifications: FreeCodeCamp (HTML, JS, React), CS50 (CS50, CS50 Web, CS50 AI)

PROJECTS

PWDMGR
Password Manager Web Application (Python, HTML, CSS, JS, Django, Bootstrap)
- Generates cryptographically random 12-16 character passwords for high security.
- Uses the Bootstrap framework to implement responsive, and easy to use front-end, for seamless UX.
- Implements fast and seamless email verification to maintain security, and utilizes AES 128-bit encryption to ensure privacy of user passwords.

BOOKSTORE
Administrators can manage books and customers, customers can buy books (Java 8, JavaFX)
- Collaborated with and led a team of 5 to complete this project, receiving a 95% grade.
- Implemented "State" design pattern to manage transitions between screens, improving extensibility.

MINESWEEPER AI
AI Minesweeper Player (Python, pygame)
- Created an AI Minesweeper player that always makes the best move, guaranteeing at least a 50% chance of winning from an empty board state.
- Utilizes backtracking search to improve AI move speed up time by up to 75%.

EXPERIENCE

TORONTO METROPOLITAN (FORMERLY RYERSON) UNIVERSITY **Toronto, ON**
Research Assistant - Software Developer 09/2020-Present
- Created an extension useful for research in radiotherapy treatments of cancer for 3D Slicer with python and Qt which outlines and follows a silhouette along a sequence of images.
- Worked to improve image loading speeds, investigating methods like parallelization and CLI scripts.
- Collaborated with a team of 5, using Agile and DevOps with Kanban framework, to improve productivity and results.