

# VENKAT GURU PRASAD

*Aspiring Software Engineer*

Mississauga, ON • (647) 300-4795 • [vguru@torontomu.ca](mailto:vguru@torontomu.ca) • [LinkedIn](#) • [Github](#)

## EDUCATION

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### TORONTO METROPOLITAN (FORMERLY RYERSON) UNIVERSITY

*Bachelor of Engineering in Computer Software Engineering*

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

Toronto, ON

Exp. 04/2025

## TECHNICAL SKILLS

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

## PROJECTS

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### 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

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### TORONTO METROPOLITAN (FORMERLY RYERSON) UNIVERSITY

Research Assistant - Software Developer

Toronto, ON

09/2020-Present

- Created an extension for 3D Slicer primarily with python and Qt which outlines and follows a silhouette along a sequence of images.
- Collaborated with a team of 5, using Agile and DevOps with Kanban framework, to complete the extension in 2 months.
- Used primarily for research in radiotherapy treatments of cancer, increasing convenience and accessibility.