

# AARYAN GUPTA

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| <https://github.com/ArinGlitch>

## SUMMARY

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### Aspiring Software Developer

A highly motivated second-year Computer Science Specialist student at the University of Toronto, minoring in Business, Science, and Entrepreneurship. I'm passionate about software development, cybersecurity, and exploring the potential of AI-driven solutions. I have a strong foundation in data structures, algorithms, and system-level programming, and I've gained hands-on experience through projects involving shell development, RISC-V programming, and basic cybersecurity concepts. I enjoy working collaboratively in agile environments and am always looking for opportunities to grow by building practical and meaningful tech solutions.

## EDUCATION

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### University of Toronto, Toronto, ON

*Expected Graduation - April 2028*

Bachelor of Science in Computer Science (Specialist) - *Currently in Second Year*

GPA: 3.91/4.00

## LANGUAGES & SKILLS

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Proficient in Python, Java, C, and Assembly, with a strong foundation in data structures, algorithms, software design principles, and systems programming. Familiar with libraries like NumPy and Pandas, and have a basic understanding of AI/ML concepts. Knowledgeable in key cybersecurity principles, including encryption, access control, and RAID. Comfortable using Git and collaborating in team-based environments. Some experience working with Arduino and basic prototyping tools.

## RELATED PROJECTS & COURSEWORK

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### AI Integrated Paint App (CSC207H5)

*November 2024*

Developed a modular JavaFX-based AI Paint application with scalable drawing features, including undo, redo, and PNG export. Integrated AI-powered file parsing using finite state machines, regex, and Ollama for automated content generation. Ensured maintainability and scalability through Agile methodologies, Git, and design patterns.

### Custom Linux Shell Development in C (CSC209H5)

*February 2025*

Developed a robust UNIX-like shell with built-in and external command execution, piping, background job control, and socket-based networking with efficient memory and resource management.

### Sokoban Puzzle Game (CSC258H5)

*November 2024*

Developed a Sokoban puzzle game in 32 bit RISC-V assembly, featuring single-player, multiplayer, and cheat-enabled modes, with advanced mechanics like unlimited stack-based undo, portals, randomized level generation, and a dynamic leaderboard for enhanced gameplay.

### Treemap Visualizer for Computer Memory (CSC148H5)

*April 2024*

Built an interactive Python treemap visualizer using optimized tree-based data structures and a clean GUI to dynamically represent and scale memory allocation in real time, supporting system analysis and debugging.

## PROFESSIONAL EXPERIENCE

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### Cyber Security Intern | AIPLTECH PVT. LTD. | Mumbai, India

*June 2023 - August 2023*

- Conducted security audits to identify vulnerabilities in IT infrastructure, enhancing data security.
- Applied encryption, hashing, and steganography techniques to improve data protection.
- Worked on RAID and disaster recovery strategies to strengthen system resilience.
- Developed a beginner-friendly cybersecurity curriculum for high school students.

### Teaching Assistant | The IITian's Hub | Volunteer | Mumbai, India

*April 2021 - April 2023*

- Mentored 20+ students for IIT-JEE in Physics, Chemistry, and Mathematics.
- Conducted weekly problem-solving sessions, addressing over 200+ complex questions.
- Developed personalized learning strategies, improving student performance.