

# Sharmarke Ismael

Minneapolis, MN | ismae014@umn.edu | 612-396-8640 | www.linkedin.com/in/sharmarke-ismael/

## EDUCATION

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**University of Minnesota Twin Cities**  
Bachelor of Science in Computer Science

Expected Graduation: May 2025

**GPA: 3.4/4.0**

**Courses:** Algorithms and Data Structures, Advanced Programming, Machine Architecture and Organization, Program Design and Development, Discrete Mathematics, Introduction to Object Oriented Programming, Statistics

## SKILLS

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Python, Java, C++, C, Assembly x86, OCaml, Git and GitHub, Visual Studios, Atom, IntelliJ, Docker, HTML, CSS, React, Design Patterns, Jira, Agile, Waterfall, Excel, Microsoft, Customer Service, Project Management, Problem Solving

## PERSONAL PROJECTS

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**Drone Simulation System** - C++, JS, HTML, Waterfall, Docker, Jira Jun 2022 - Aug 2022

- Concocted a sophisticated drone simulation system, prioritizing efficient UMN campus trip scheduling and optimizing robot transportation
- Implemented realistic features, including dynamic weather effects and a notification system for user updates
- Showcased expertise in high-performance programming with C++, created engaging interactive interfaces using JavaScript and HTML, and ensured streamlined deployment through Docker

**Chess Program** - Java, IntelliJ, Git Jun 2022 - Aug 2022

- Engineered a robust Chess program in Java using IntelliJ and Git, implementing advanced game logic and player-vs-player capabilities
- Utilized 2D Arrays for the chess board and wrote functions to enforce game rules, showcasing proficiency in data structures and algorithms
- Designed a user-friendly GUI with responsive controls, incorporating Unicode characters for visually appealing chess piece representation

**Snake Game** - Python, Atom, turtle Jan 2022 - Feb 2022

- Developed a Python-based rendition of the classic Snake game using the turtle graphics module, featuring a 700x700 pixel interactive UI
- Incorporated object-oriented design with core classes representing the game, snake entity, and food pellets, ensuring smooth gameplay mechanics
- Incorporated dynamic user interactions, allowing snake direction control via arrow keys, growth upon consuming pellets, and game-ending checks for collisions

## LEADERSHIP

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**Somalis in Business and Tech** - University of Minnesota Twin Cities  
Founder and President

*Jan 2023 - Present*  
*Minneapolis, MN*

- Established a student organization dedicated to empowering the Somali community within business and tech
- Designed and implemented a robust tutoring and mentorship program providing weekly sessions for coursework and project assistance
- Direct a team of 10+ members to complete essential tasks, ensuring organizational momentum and progress

## WORK EXPERIENCE

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**University of Minnesota Twin Cities**  
Computer Science Teaching Assistant

*Aug 2022 - Present*  
*Minneapolis, MN*

- Host weekly office hours and lead weekly labs, offering hands-on aid with homework and course-related challenges
- Grade labs, homework, projects, midterms, and final exams, playing a significant role in the evaluation process

**Arizona State University**  
Undergraduate Research Intern

*Jun 2023 - Aug 2023*  
*Tempe, AZ*

- Developed a detailed interview protocol to delve into diversity issues within the engineering field
- Conducted in-depth qualitative interviews, coupled with a structured coding scheme, ensuring the data analysis yielded strong and actionable insights
- Collaborated with a diverse research team, leveraging individual expertise to drive project advancements, enhance research methodologies, and achieve shared objectives, resulting in more comprehensive and impactful outcomes