

# Rand Ismaael

rismaael3@gatech.edu | (404)-509-9209 | Atlanta, GA | U.S. Citizen

## EDUCATION

### Georgia Institute of Technology

College of Engineering | Bachelor of Computer Engineering

Atlanta, GA

August 2023-May 2027

- **Relevant Coursework:** Linear Algebra, Discrete Mathematics, Programming for Hardware/Software Systems, Object-Oriented Programming, Fundamentals of Digital Design, Data Algorithms and Structures, GPU Programming for Gaming

### Mountain View High School

High School Diploma

Lawrenceville, GA

August 2019-May 2023

## EXPERIENCES

### Krone Engineered Biosystems Building

Junior IT Technician Support

Atlanta, GA

February 2024-Present

- Enhanced operational reliability and user satisfaction by providing technical support for hardware and software systems, including AV setups, data access, printer configurations, and Linux server management across multiple buildings.
- Strengthened system uptime and security by performing network troubleshooting, system updates, and user access management, supporting secure and reliable IT operations.
- Streamlined IT infrastructure by assisting with Active Directory management, user account setup, and group policy enforcement, ensuring secure and efficient user access.
- Facilitated efficient user onboarding and device readiness by managing device deployment for the Georgia Tech Domain, ensuring seamless configuration and user experience.
- Enabled seamless staff onboarding and operational readiness by configuring Linux devices (Ubuntu), including initial setup, network configuration, and user account management.
- Restored critical data for staff by extracting files from damaged hard drives using Linux systems, ensuring secure and efficient data recovery.

## PROJECTS

### Puzzle Match (RISC-V and C)

- Implemented a pattern matching algorithm for a classic IQ puzzle in both C and RISC-V assembly, optimizing for memory and execution efficiency.
- Developed both a high-level C implementation and a performance-focused RISC-V assembly version to match color patterns with mirroring and rotation detection.
- Managed bitwise operations and low-level memory handling for optimal speed and minimal storage.

### Snake Game (C, Mbed Platform)

- Created a modified version of the classic Snake game on the Mbed platform, featuring a 16x16 grid, custom sprites, and dynamic item effects.
- Implemented snake movement, collision detection, and item interaction using a doubly linked list for efficient data management.
- Designed a responsive user interface with real-time score tracking, boost timers, and game over screens on a uLCD display.

### Word Guessing Game (C, Mbed Platform)

- Built a word guessing game with a doubly linked list for keyboard navigation and word storage.
- Implemented real-time feedback for letter placement, hint systems, and custom graphics for an engaging user experience.

## RESEARCH EXPERIENCE

### CLEO All Optical Control Project

Research Student

Atlanta, GA

January 2025-Present

- Improved analysis speed and experimental accuracy by creating data processing scripts for 1-photon to 2-photon ratio calculations, reducing manual data handling and streamlining data workflows.
- Enhanced computational modeling accuracy by curating and optimizing structured data libraries for opsin simulations, integrating data from published research for efficient and reliable data retrieval.
- Increased simulation efficiency and data consistency by collaborating with research teams to optimize data storage and streamline database workflows.

### Neurology Research at Brigham and Women's Hospital

Research Trainee

Boston, MA

July 2022

- Observed the effects of Anti-CD3 on Traumatic Brain Injury through varying behavioral tests on animal subjects.
- Administered Anti-CD3 to test rats and assisted in collecting data to analyze the behavior in response to the injected medication.
- Collected and analyzed experimental data, contributing to clinical research advancements.

## SKILLS & CERTIFICATIONS

**Certifications and Applications:** Adobe Premiere Pro Professional Certification, Microsoft Word Certification

**Languages:** English (Fluent), Arabic (Fluent)

**Technical Skills:** Bash Scripting, Linux Systems, Database Management, Virtual Machines, Data Analysis, Git/GitHub, Embedded Systems

**Coding Languages:** C, MIPS Assembly, Java, Python, HTML

**Film Work Portfolio:** [sites.google.com/view/randismaael/home](https://sites.google.com/view/randismaael/home)