

# Joshua Daugherty

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## Education

4.0/4.0 **Accelerated MS in Computer Science**, University of Alabama at Birmingham | Birmingham, AL Jan 2023 - Apr 2025  
3.75/4.0 **BS in Computer Science**, University of Alabama at Birmingham | Birmingham, AL Aug 2020 - Apr 2024

**Courses:** Artificial Intelligence | Advanced Algorithms & Applications | Programming Languages | Automata Theory & Formal Languages  
Database Systems | Computer Security | Software Engineering | Linear Algebra | Object Oriented Programming | Systems Programming

## Experience

**University of Alabama at Birmingham, Teaching Assistant: Probability & Statistics** Aug 2023 - Present

- Teach Probability Theory and Python programming (Numpy, Matplotlib, and other libraries)
- Assist 100's of students by hosting lectures, office hours, and study sessions
- Proctor exams, collaborate with the professor on course materials, and mentor students
- Prepare lecture material, grade assignments, and provide valuable feedback for students

**Saucey Inc., Catalog Specialist (Full-Time) | Remote** Feb 2022 - Nov 2022

- Attend weekly and biweekly sprint reviews to give updates on my team's projects
- Evaluate 100's of stores' onboarding inventory and provide insightful feedback
- Modify SQL and Bash scripts according to parameters on a store-to-store basis
- Quality control of 100's of store menus and website products

**Saucey Inc., Data Entry Intern (Part-Time) | Remote** Aug 2021 - Nov 2021

- Ensure consistent data entry across platforms for new and pre-existing stores
- Validate and verify existing data, images, and inventory of products for 100's of stores
- Communicate effectively with team members on deadlines, projects, and updates

## Skills

**Programming** Python, C/C++, Java, JavaScript, Git, Bash/Powershell, GDScript, PostgreSQL  
**Mathematics** Linear Algebra, Calculus, Probability Theory, Discrete Maths, Numerical Analysis, Real Analysis, Differential Equations  
**Software** Linux, VS Code, IntelliJ, Docker, Git, Godot Engine, JavaFX, Flask, Google Workspace, MS Office, Adobe Creative Suite

## Projects

**Maze-Solving Bot** Sept 2023 - Dec 2023

CS 660 - Artificial Intelligence (Course Project)

- Implemented and fine-tuned algorithms such as A\* search, to optimize the bot's pathfinding abilities
- Worked effectively in a team environment, collaborating with other students from diverse backgrounds to achieve project goals
- Identified challenges and devised creative solutions to optimize the bot's performance, making it adaptable to various mazes

**Godot RPG Game** Apr 2023 - June 2023

Godot Game Engine / GDScript (Personal Project)

- Created a 2D role-playing game where a player can explore areas and defeat monsters
- Programmed the logic and physics engine for the combat and movement systems
- Utilized the integrated Godot blender to create sprite animations

**Farm & Drone Dashboard Project** Sept 2023 - Dec 2023

CS420 - Software Engineering (Course Project)

- Worked with a team to create a drone-dependent farm optimization software for large scale farms
- Programmed in Java and used JavaFX to create a working farm dashboard, application, and controller
- Implemented UML Diagrams and other framework components to help with better visualization

## Extracurricular

**Blazers uLoL at UAB, Club Director** Aug 2021 - Present

- Manage a club of over 100 students while displaying leadership skills and capabilities
- Assist other club executives in planning and managing club events
- Attend budget meetings and club proposal meetings with the club president

**Association for Computing Machinery (ACM at UAB), Member** Aug 2022 - Present

<https://uabacm.org/>

- Attend club events and participate in workshops on a weekly basis