

Melanie Jackson

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EDUCATION

Spelman College

Atlanta, GA

Bachelor of Science in Computer Science

GPA: 3.58

Expected May 2027

Relevant Coursework: Software Engineering, Algorithms and Systems Design, Linear Algebra, Data Structures and Algorithms, Calculus 2, Calculus 1, Intro to Engineering

AWARDS AND HONORS

Codehouse Scholar (\$20,000), ELC HP Inc. Scholar (\$10,000), Splunk Scholar (\$10,000), TMCf Scholar (\$3,500)

TECHNICAL SKILLS

Programming Languages: Python, C++, C#, p5.js, React, Typescript

Software: Git, Vertex AI, Streamlit, Flask, Google Cloud Shell, Unity, CAD, Arduino, Framer, Figma, Visual Studio Code, IDLE

WORK EXPERIENCE

MCKINSEY & COMPANY Incoming Software Engineering Intern

August 2026 - December 2026

MICROSOFT Incoming Software Engineering Intern

May 2026 - August 2026

MICROSOFT Software Engineering & Project Management Intern (Explore)

May 2025 - August 2025

- Worked in a 3-person pod to design and deploy a metagraph-powered chatbot that accessed and interpreted node relationships.
- Implemented React and TypeScript UI features and flighted them for testing, completing a P0 task through iterative pull requests, code reviews, and accessibility reviews to ensure a smooth user experience.
- Built and integrated a chatbot feedback feature (thumbs up/down with comments) that allowed users to provide feedback on responses, enabling the team to review inputs and guide future improvements.

GOOGLE TECH EXCHANGE Student

October 2024 - April 2025

- Selected for a competitive semester-long Google academic program focused on advanced computer science topics such as algorithms and software development; collaborated with Google engineers on debugging, system design, and team-based projects
- Engineered projects, including a decision tree-based *20 Questions* game and a graph-driven Mars rover simulation that used search algorithms

ACTIVISION + EICOP GAMES HBCU in LA Student Intern

June 2024- July 2024

- Developed two 2D games, *Musical Knights* and *Journey to Amani*, leading software implementation, game mechanics, background design, user interface, and storyline integration

TECHNICAL PROJECTS

STREAMLIT FITNESS APP

Developed a data-driven fitness application in a team of four using Streamlit and Vertex AI to deliver personalized workout recommendations and event scheduling

- Improved fitness recommendation accuracy by **20%** by integrating **Vertex AI** into a **Streamlit app**, leveraging user data and **Google Cloud** queries to generate personalized advice
- Enabled scheduling of up to 50 weekly group workouts by creating a **Streamlit** calendar connected to a query database, enhancing user engagement for those with similar fitness profiles

PERSONALIZED AI CHATBOT VALENTINE'S DAY GIFT

Developed an interactive AI chatbot designed to converse and provide personalized answers based on relationship details such as anniversary dates, birthdates, and other shared memories

- Utilized **Flask** and **Python** to create a dynamic knowledge base that allows the chatbot to learn and respond to personal questions, enhancing its ability to recall and update information over time
- Integrated Natural Language Processing (NLP) with **SentenceTransformers** and **RapidFuzz** for effective question matching and clarification, allowing the chatbot to improve its accuracy with each interaction

SPELPRENUER 10-DAY PITCH COMPETITION

Marketer and Technologist

Secured the 3rd place **\$1,000** prize out of 9 teams for an innovative dog collar GPS design in a pitch competition

- Business creation: Co-founded a startup venture to ease the stress of dog owners finding their lost dog through a GPS dog collar and a partnering app that tracks the dog's location and sets boundaries where, if the dog steps out of the boundary, contacts of the user's choice are notified
- Created an **Arduino** sensor and GPS to measure the distance between the dog and the house and notify the user when the dog is out of bounds

LEADERSHIP AND PROFESSIONAL DEVELOPMENT

SPELBOTS CHAIR MEMBER Social Media Chair

January 2025 - Present

- Increased the club's Instagram following by **16.7%** through consistent, high-quality content that highlighted team accomplishments and outreach efforts

MLT CAREER PREP Fellow

February 2025 - Present

- Selected for the Management Leadership for Tomorrow (MLT) Career Prep program, a rigorous professional development experience for high-achieving, diverse talent

TMCf SCHOLAR: THE CHEVRON INNOVATION SUMMIT Scholarship Recipient

August 2024

- Secured 2nd place (**\$17,500**) out of 4 teams at the Chevron Innovation Summit for developing a website and communication strategy to influence policymakers to support the coexistence of electric vehicles and renewable gas at the Richmond Refinery

CLUBS AND ORGANIZATIONS

Management Leaders of Tomorrow Ascend Scholar (MLT), NSBE, Girls Who Code Mentoring Corps, Spelbots, Spelprenuer