

Ayah Zaheraldeen

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EDUCATION

Georgia Institute of Technology , Atlanta, Georgia <i>Bachelor of Science in Computer Science</i>	August 2027 GPA: 3.76/4.00
Universidad Metropolitana (Unimet) , Caracas, Venezuela	Sep 2023 – Jul 2023
Cambridge International School , Dubai, UAE	Aug 2020 – Jul 2023

Relevant Coursework: Data Structures and Algorithms, Intro to Object Oriented Programming, Discrete Mathematics, Differential Calculus, Integral Calculus, Linear Algebra, Modern Physics

PROGRAMMING SKILLS

Proficient in **Python, Java, C, HTML/CSS, Javascript, Numpy, Pandas, PyQt Streamlit, Docker, Jupyter, Altium, Autocad, Microsoft Office**

WORK EXPERIENCE

Student Assistant, Office of Undergraduate Admissions , Atlanta, Georgia	Ongoing
• Manage and respond to 100+ emails, events calendar and decision release questions for the Georgia Institute of Technology, ensuring student and parent satisfaction	
• Research and respond to each question with accuracy and precision and organize received official and confidential student documents and transcripts	
Teacher/Professor Assistant for Discrete Mathematics , Caracas, Venezuela	Apr 2024 – Jul 2024
• Recognized for clear and systematic teaching at 'La Universidad Metropolitana', supporting 40+ students in understanding complex topics in Discrete Mathematics through 1.5-hour classes	
• Developed 10+ hours of weekly guides and theory lessons, noted as exceptionally comprehensive by students, though actively simplifying to maximize clarity	
Undergraduate Research Assistant , Caracas, Venezuela	Jan 2024 – Jul 2024
• Conducted pioneering research on solar cookers implementation in Venezuela, recognized by the engineering department and supported by multiple professors, leading to its integration as a final project for students in Thermodynamics 1	
• Analyzed materials, semiconductors, and ideal operational conditions, contributing to the foundation for Venezuela's first large-scale solar cooker implementation for rural areas, currently being further researched at the university	
• Shared findings at university's open conference, leading to future collaboration opportunities with 200+ engineers and industry leaders	
Engineering Intern/Researcher/Evaluator , Dubai, UAE	Apr 2022 – Sep 2022
• Researched 10+ refrigeration systems, detailing specifications for cold storage units (e.g., chiller evaporators, dual discharge coolers, compressor racks), providing data that secured 5+ project approvals across the Middle East	
• Delivered precise component specifications (voltage, size, power) using Digikey resources, supporting accurate financial projections and material requirements	
• Independently created AutoCAD models for 10+ land areas, coordinating with tens of senior and junior engineers on and off site to facilitate project planning	

TECHNICAL APPLICATIONS

Frontend Developer	Feb 2025
• Built InsureLink, an AI-driven healthcare web app streamlining health insurance recommendations tailored to users' chronic conditions, budgets, and coverage needs	
• Developed the frontend with Streamlit, ensuring a responsive and intuitive user interface and engineered the backend leveraging Google's Gemini LLM	
• Integrated structured data from the HealthCare.gov Georgia insurance dataset, enabling dynamic, data-driven outputs	
Frontend Developer	Oct 2024
• Developed a medical triaging appointment booking system during Georgia Tech's collegiate hackathon under the data analytics track, that utilizes trained AI models; medical and patient interface using Javascript, HTML and CSS across 36+ hours, connected with Multipurpose Internet Mail Extensions (MIME) to send patient email confirmations	
• Integrated backend AI trained models on various patient symptoms and their urgency; used TensorFlow, tokenizer, Streamlit, and python pandas and NumPy; made frontend connection using Flask	
AI/ML Developer	Oct 2024
• Engineered an AI-driven novel-reading app at UC Berkeley's hackathon that narrates books in character-specific voices, leveraging machine learning to analyze traits, LLMs for context, and DeepGram for text-to-speech, with interactive user features to converse with characters in their unique voices	
• Optimized the user experience with real-time text highlighting using PyQt and FastAPI endpoints, overcoming challenges in character voice training and speech synthesis	

LEADERSHIP AND COMMUNITY ENGAGEMENT

Partnership Director at Startup Exchange , Georgia Tech	Ongoing
• Connecting student entrepreneurs with industry resources, mentors, and funding opportunities by developing strategic partnerships that support innovation and startup growth on campus.	
• Securing sponsorships and collaborations with top-tier companies including NVIDIA and Truist.	
Lead Researcher at Data Science Club & Quantum Computing Association , Georgia Tech	Ongoing
• Spearhead research on quantum annealing techniques, developing novel problem formulations to leverage quantum annealers for efficient and effective solutions	
• Develop quantum error correction utilizing Steane code to generalize error correction using Python, IBM's Qiskit	
GT Experimental Rocketry , Georgia Tech	Ongoing
• Develop the avionics radio board as part of the flight system for an experimental rocket, enabling robust GPS, telemetry, and RF communication	
• Contributed to debugging and simulations to optimize telemetry via C language integration on the HAL board and MCU; results from the last launch achieved 1600m altitude and uninterrupted GPS coverage—exceeding initial targets by 150%	

