

Yara S. Kharat

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EDUCATION

Georgia Institute of Technology (GaTech), Georgia

Graduating in 2027

Bachelor of Science in Computer Science, concentration in Systems-Architecture and Intelligence | Dean's List

TECHNICAL SKILLS:

Programming Languages: Java (advanced), Python (advanced), C (intermediate), C++ (intermediate), JavaScript (beginner)

Operating Systems and Tools: Windows, Ubuntu, Linux, MacOS, Git, VS Code, IntelliJ IDEA, Docker

Frameworks, Libraries, & Technologies: React, CSS, HTML, OpenCV, NumPy, MongoDB

EXPERIENCE

Technical Assistant, Technological Services Organization, GaTech

Aug 2024 - Present

- Resolving 15 tickets in a 10-hour work week with high satisfaction from faculty.
- Troubleshooting hardware and software for Windows and macOS, including installations and account management.
- Performing system setups and wipes, assisting with email client setups, IT security applications, and printing.
- Working in a help desk environment, with technical teams conducting office visits to resolve problems.

Sub-Team Lead, FlameJackets VIP Program, GaTech

Aug 2024 - Present

- Leading the micro-path planning team as a Top-29 XPRIZE Wildfire Response finalist to develop an autonomous drone for wildfire detection and suppression.
- Optimizing algorithms and researching sensor fusion (LiDAR, IR, RGB) to enhance drone perception and decision-making.
- Implemented and evaluated 5 visual SLAM systems in Python, improving autonomous navigation and mapping.

Programmer, Georgia Tech Experimental Rocketry, GaTech

Aug 2024 - Present

- Developing avionics embedded systems, including TIM and the Pyro Board, converting C++ in Arduino to C in STM32CubeIDE to enhance rocket functionality with the aim of reaching the Kármán line.
- Leveraging Docker to streamline development workflows and enhance team collaboration on complex aerospace systems.

Developer, BattleBots, GaTech

Aug 2024 - Present

- Collaborating with a team of 10 to engineer a full-body spinner robot for competition, optimizing mechanical performance.
- Manufacturing the robot in Spring 2025 by applying robotics engineering expertise and advanced machine shop techniques.

Mentor, Futures in Engineering: Role-Models Can Empower, Penn State University (PSU)

Sep 2023 - Apr 2024

- Conducted STEM education outreach helping 100+ students explore engineering concepts through hands-on projects.
- Led campus tours for students from diverse backgrounds, encouraging the pursuit of higher education.

Member, Society of Women Engineers, PSU

Sep 2023 - Apr 2024

- Promoted STEM involvement for 40+ young girls through community engagement programs and workshops.
- Participated in professional development through networking events, including the Lehigh STEM Banquet.

PROJECTS

TradeHive, Hacklytics 2025

Feb 2025

Prototyped an AI-driven stock market simulation using React.js, Python, and Yahoo Finance API to replicate real trading dynamics. Integrated AI tools (Langflow, OpenAI, Tavily) to provide personalized investment guidance, enabling users to test strategies, analyze market trends, and make informed financial decisions in a risk-free environment.

PreView: Interview Assistant, started at AI-ATL

Oct 2024 - Present

Led frontend development in React.js for the prototype. Currently branching into backend data storage with MongoDB. Designing an AI-mock interview simulator Python (Flask), integrating OpenAI's API and Gemini API for real-time questions and feedback alongside the team. Enabling data tracking and progress analysis with an intuitive, responsive interface.

Walley the Wallet, HackGT11

Sep 2024

Developed a budgeting website in React featuring detailed analyses of student loan payment plans with visualized graphs powered by Recharts and designed in Figma. Integrated a virtual pet mascot, "Walley," whose health reflects the user's budget savings.

Pro-Reserves, Shabab Lab National Competition for Web Development

Mar 2020 - Jul 2020

Won 3rd Place. Conceptualized a prototype for a web platform to support environmental reserves in Lebanon by promoting local products. Developed as part of a social entrepreneurship initiative with a researched pitch and business plan.

COMMUNITY ENGAGEMENT:

Student Government Association Representative, Honors Club, PSU

Sep 2023 - Apr 2024

- Communicated club interests and initiatives at SGA meetings while engaging in supplemental educational research opportunities.

Treasurer, Pavement Project, PSU

Sep 2023 - Apr 2024

- Oversaw financial planning and budget management for trips and programs, ensuring efficient allocation of resources.
- Organized and participated in community service events to support local shelters and the Schuylkill Trail trash pickup.

LANGUAGES

English (native), Arabic (native), and French (professional)

ADDITIONAL SKILLS AND INTERESTS

Piano, Crochet and Knitting, Drawing, Swimming, Philanthropy, Sketching, Application Engineering