

George I. Habashi

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Summary

Passionate about bridging software engineering with real-world hardware applications such as telemetry and performance diagnostics. Determination in motivating opportunities in software development, full-stack development, embedded systems, and automotive technologies.

Education

- Bachelor of Science in Computer Science, Capstone: Software Senior Sequence

University of Houston | Expected Graduation: December 2025

- **Relevant Coursework:** Data Structures, Object-Oriented Programming, Web Development, Mobile Application Development, Database Management, Algorithms, Embedded Systems with Arduino, AI Fundamentals

Experience

- SW intern (CubeSat-I) | EgSA (Egyptian Space Agency)

- Collaborated on software design for low-cost CubeSats (1U–6U) deployed via weather balloons.
- Developed Python and C++ software for data acquisition (surface imaging) and implemented magnetorquer control for satellite orientation.
- Demonstrated teamwork, problem-solving, and system simulation under real-world constraints. Fall, 2022 | EgSA, Cairo, Egypt.

- Undergraduate Research Assistant | Prof. Zhigang Deng, Department of Computer Science, UH

+ Analysis and Modeling of Human Behaviors in Multiparty Conversations: -

- Assisting in modeling and predicting human conversational behavior using 3D motion capture and AI.
- Analyzing multimodal motion data to develop a real-time next-speaker prediction algorithm. August 2025 – Current

- Student Enrichment Program (SEP) Scholarship | College of Natural Sciences & Mathematics (UH)

- SEP/H-LSAMP Scholarship, Position: SEP Office Aid, participated in 4 professional development events 2023 Fall 2023 – Spring

- Full-Stack Web Development | Archangel Raphael Coptic Orthodox Church

- Developed and managed an online portal for Sunday school students and servants with role-based access in our church.
- Programmed secure user authentication, grade-specific quizzes, lessons, and videos using PHP, MySQL, HTML, CSS, and JavaScript.
- Integrated database-driven lesson management to improve accessibility and content delivery. June 2025 - Current | Test link: <http://aar-sds.atwebpages.com>

- SW Design, QuantaMedics (Medical-AI Research) | Graduation Project (CIC University)

- Utilized Quantum Convolutional Neural Networks (QCNN) with TensorFlow to classify fMRI brain scans for autism detection using the ABIDE II dataset.
- Achieved over 90% detection accuracy by integrating quantum computing techniques into the model.
- Documented and validated findings for academic submission. Fall 2023 | CIC University (New Cairo Campus), Egypt.

- Android SDK Development | Team Project

- Designed and developed "Diet Trak," a B2C mock health-tracking Android app using Kotlin, Java, and Firebase.
- Implemented secure user authentication via Google and Facebook APIs.
- Streamlined diet recommendations through data-driven algorithms and responsive UI design. Summer, 2022 | Cairo, Egypt.

- Cashier | Whataburger | 18190 Gulf Fwy, Friendswood, TX 77546

- Implemented Balanced full-time overnight shifts with a full-time academic schedule.
- Demonstrated teamwork, adaptability, and reliability under fast-paced conditions. March 2023 – November 2024

Skills

- **Programming Languages:** C++, C, Java, Python, JavaScript, Kotlin, MATLAB, CSS, Firebase

- **Tools & Platforms:** Android SDK, Visual Studio, AutoCAD, WordPress, TINA TI, Blender, Microsoft Office

Extracellular

+ **Church Technical Service:** Designed and managed the church's web database system for Sunday school.

+ **Hobbies:** Story writing, model airplane design, and flight dynamics research.

+ **Languages:** English (Fluent), Arabic (Fluent), French (Basic)

+ **College Clubs:** Orthodox Campus Christian Ministries (OCCM - UH), Cougar Racing (UH), EVER (Egypt), CougarAI (UH), CougarCS(UH) and Robotics@UH

+ Arduino-Based C++ Vehicle Dashboard Telemetry and Aerodynamic analysis | EVER IV (Electric Formula Student in Egypt)

- Programmed a real-time dashboard for an electric race car using Arduino HW
- Utilized Ansys (AutoCAD & MATLAB) to design and test the fiberglass body for the vehicle, targeting a Cd. Of 3.0, we achieved an improvement over the previous year's design, and we achieved a Cd. Of 2.8

+ Cougar Racing | University of Houston

Participating member contributing to vehicle system integration, telemetry data acquisition, and hardware-software synchronization.

References

- Professor Zhigang Deng | Computer Science Department – UH | Office PHG 228 | (713) 743-1018 | zhigang.deng@gmail.com
- Eduardo Cerna | Program Director, Scholar Enrichment Program NSM – UH | Office (713) 743-1750 | ecerna@central.uh.edu