Theodore Willingham

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SUMMARY OF QUALIFICATIONS

Computer Science student at the University of Georgia (4.0 Major GPA, AI emphasis) with hands-on experience in satellite software systems, full-stack web applications, and C/C++ systems programming. Selected for NASA-aligned CubeSat research lab and proven track record of delivering impactful solutions, from optimizing police emergency response systems to developing secure OTA firmware updaters. Passionate about building reliable, scalable software and contributing to mission-critical projects.

EDUCATION

University of Georgia, Franklin College of Arts & Sciences — Athens, GA
Bachelor of Science in Computer Science | Area Of Emphasis: Artificial Intelligence — December 2026
- Major GPA: 4.00/4.00
- Minor: Japanese Language & Literature

RELEVANT COURSEWORK

Software Development | Theory of Computing | Systems Programming | Web Development | Computer Networks | Data Structures | Calc 3 | Discrete Mathematics | Algorithms | Computer Architecture Organization | Human-Comp Interaction

TECHNICAL SKILLS

- **Programming Languages**: Python (Intermediate), Java (Advanced), C (Intermediate), C++: (Intermediate), TypeScript (Advanced), HTML: (Advanced), CSS: (Intermediate)
- **Frame Works / Libraries:** JavaFX, React, Mongoose (ODM), OAuth, JWT (JSON Web Tokens), NextAuth.js, NASA F' Flight Software Framework
- **Tools:** Linux/Unix**,** Git, MongoDB, Node.js, NextAuth.js, Figma

OTHER WORK EXPERIENCE

Waiter — Athens, GA
Olive Garden — *July* 2021 - *December* 2022
- Demonstrated professionalism, teamwork, and problem-solving in a fast-paced environment.

Police Cadet — Athens, GA
Athens-Clarke County Police — *August* 2024 - Current
- Optimized ACCPD's SQL-based CAD system, improving emergency response efficiency by 27%.
- Connected RFID-enabled Linq cards to a centralized web platform for ACCPD, significantly improving public access to critical community resources and increasing engagement by 17%.

PROJECT EXPERIENCE

Teddy's Stock Evaluator (Java - JavaFX) — **Spring 2023**
- Developed a multi-tab stock evaluation tool using Alpha Vantage and Numbers APIs. Assessed stocks using three custom metrics, defined in collaboration with a former ExxonMobil Senior Engineering Specialist turned financial advisor.

Secret Image Encoder / Decoder (C, libpng) — **Fall 2024**
- Developed in C using libpng, the system encrypts ASCII messages into binary and embeds them into PNG image RGB values. Implemented a decoder with error detection to accurately extract and decrypt the message.

Bulldog Marketplace (TypeScript, React, CSS, Node.js, MongoDB) — **Spring 2025**
- Developed a full-stack web application enabling UGA students to buy and sell secondhand goods within the campus community. Built a responsive React frontend with TypeScript and styled it using CSS. Designed and implemented a secure backend using Node.js, and MongoDB with Mongoose for data modeling. Integrated Mapbox API to display user locations and provide directions between buyers and sellers. Secured user authentication with OAuth and implemented password hashing and salting for data protection.

Over The Air Updater for MEMEsat-1 Satellite (NASA F´ Flight Software Framework, C++) — **Fall 2024 - Current**
- Selected as one of 3 candidates from 300+ applicants after 3 interview rounds. Developed a robust OTA firmware updater component for the MEMESat-1 satellite, featuring auditing, tracking, checksum validation, and multi-threaded synchronization to ensure reliable in-orbit updates.

HONORS & INVOLVEMENT

- Presidential Scholar (Fall 2023, Spring 2024, Fall 2024, Spring 2025)
- Secretary of UGA Japanese Conversation Club
- Small Satellite Research Laboratory (https://smallsat.uga.edu/)