

Yonathan T. Gashu

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EDUCATION

Georgia Institute of Technology

Atlanta, GA

Bachelor of Science in Computer Science - GPA 3.93/4.0

Graduating May 2027

- Specializing in *Systems & Architecture & Devices*
- Coursework: Data Structures & Algorithms, Computer Organization, Computer Systems & Networking, Linear Algebra

EXPERIENCE

Department of Defense (DoD)

May 2025 - Aug. 2025

Capabilities Development Specialist (Control Networks Section)

Washington, DC

- Employed reverse engineering techniques to examine network-enabled embedded devices and exploit firmware vulnerabilities
- Developed proof-of-concept tools enabling remote code execution
- Conducted static and dynamic analysis on the control flow of functions of interest to enhance understanding of device runtime behavior
- Authored comprehensive documentation outlining findings and usage of created capabilities

Artificial Intelligence Research Intern

May 2024 - Aug. 2024

- Worked alongside senior researchers on a project investigating how knowledge graphs (KGs) can be extracted from unstructured text
- Collaborated with researchers on the development of a KG-RAG system to enable Knowledge Graph Question Answering (KGQA)
- Developed methodologies for Named Entity Recognition (NER) and Relationship Extraction (RE) to populate the KGs
- Wrote *Python* scripts using *pandas* & *numpy* for efficient processing of data from PDF to KG format

Software Engineer Intern

Sep. 2022 - Aug. 2023

- Member of the government development team in the Data Targeting Solutions division. This team is essential for the creation of enterprise applications in support of targeting using Cloud Native techniques
- Utilized *Java* to develop backend database management features for internal web application, and successfully integrated those functionalities into the frontend interface using *VueJS*
- Created a developer-sided API to allow for more efficient creation of test agreements/datafeeds
- Awarded a monetary award for exceptional contributions

Verizon

Jul. 2022 - Aug. 2022

System Engineer Intern

Remote

- Assisted in setting up Jenkins for continuous integration and continuous deployment (CI/CD) as a part of a DevOps team, contributing to efficient code management processes
- Gained foundational knowledge in DevOps practices, AWS basics, microservices architecture, and cloud computing solutions

AWARDS AND ADDITIONAL EXPERIENCE

Georgia Tech Provost Scholarship: Prestigious merit scholarship awarded to 60 out-of-state students, from a pool of thousands

Stokes Educational Scholarship: Selected to receive up to \$30,000 in tuition scholarship annually, a year-round salary, and summer internships

VIP Member: Member of the Autonomous and Connected Driving Simulator VIP on the Cybersecurity subteam

TECHNICAL SKILLS

Languages: C, Java, C++, Python, C#, Assembly (ARM64), JavaScript

Frameworks: React, Node.js, Vue, JUnit

Developer Tools: Ghidra (Firmware Analysis, Reverse Engineering), Atlassian tools (Bitbucket, Confluence, JIRA), Linux, Git, VMware, Wireshark, Docker, Amazon Web Services, Google Cloud Platform, VS Code, IntelliJ, Jenkins, Agile, JIRA, Unity