

Joseph Masson

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EDUCATION

Georgia Institute of Technology

Atlanta, GA

B.S. in Computer Science

GPA: 3.7/4.0 | Aug. 2022 – Dec. 2025

- Specialization: Cybersecurity and Privacy & Information Internetworks
- Relevant Course Work: Information Security, Enterprise Security, Security Dimensions, Database Systems, Data Structures and Algorithms, Computer Architecture, Computer Networking, Network Security, Spanish
- Organizations: iOS Development Club (Senior Developer), GreyHat Security Club, Delta Sigma Phi (Secretary)

EXPERIENCE

Amazon — Under The Roof Planning Tech

Nashville, TN

Software Development Engineer Intern

May 2025 – Aug. 2025

- Designed an audit service with Typescript and Python to automate annual operational excellence reviews for machine learning infrastructure, reducing the time needed to investigate 100+ AWS resources from days to seconds
- Implemented AWS Lambda Functions utilizing CloudWatch to scan for over 40 missing alarms and improper configurations in labor planning services across multiple regions, lowering chance of service failure with OE insights
- Engineered a CI/CD application with pipelines, integration tests, and alarms that utilizes S3, IAM, EventBridge, and AppConfig to re-architect service workflows that increase operational preparedness for a 4 team organization
- Created a CDK construct stored in a Typescript library that automatically creates 3 types of necessary AWS infrastructure for audits as an onboarding tool to significantly speed up client enrollment to the service

Georgia Institute of Technology

Atlanta, GA

Undergraduate Researcher

Jan. 2024 – May 2025

- Coordinated a sub-team of 10 researchers to develop autonomous robots for power grids affected by ransomware
- Created co-simulations between robot procedures in ROS and electric grids in C++ using the HELICS framework
- Integrated 5 software tools into a Docker-based virtual machine with clear documentation for easy onboarding

Program and Teaching Assistant — Database Systems & Discrete Math

May 2024 – July 2024

- Traveled with the College of Computing Study Abroad Program to serve as a program leader for 64 students
- Facilitated homework assignments, examinations, review sessions, and grading with Georgia Tech faculty
- Instructed students in database theory and architecture, MySQL, GUI design, proofs, probability, and statistics

Head Resident Advisor

August 2023 - Present

- Foster the development of relationships for 30+ residents and serve as a living resource in a first-year residence hall
- Received Excellence in Leadership Award in 2025 for leading and training new RA's in multiple growth areas

PROJECTS

StudyBuddy | Senior Developer | *Swift, SwiftUI, Firebase Cloud Storage*

Spring 2025

- Led a team of 4 developers to build a documents and storage interface for a study companion app
- Coordinated 3 milestones and 30 tasks with Issues and performed code review to maintain quality and style
- Established collaboration between 5 teams to integrate team features with chatbot, flashcard, and social use cases

Loop | *watchOS, HealthKit, Firestore*

Fall 2024

- Utilized watchOS and HealthKit to create the first fitness companion app for Apple Watch in club's history
- Developed MVVM frameworks to store and process workout data and transfer to storage solutions and host app

DiagnoseMe | *Python, JS, ReactJS, Electron JS, Flask, OpenAI*

Spring 2024

- Designed the user experience for an interactive chatbot simulating patient interactions for medical students
- Leveraged 10+ React components to design an application and oversaw deployments to desktops and web browsers

TECHNICAL SKILLS

Languages/Frameworks: Typescript, Python, Java, SQL, JavaScript, Swift, C, C++, HTML, CSS, Rust, R

Developer Tools: AWS CDK, Git, MySQL, Docker, Google Cloud, React, ROS2, Android Studio, IntelliJ, VSCode

Security: Splunk, IAM, Secrets Management, Automation, Network Security, Enterprise Cybersecurity