Varun Warrier

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EDUCATION

Georgia Institute of Technology

Expected May 2026

Bachelor of Science in Computer Science - Intelligence & Devices Concentration

GPA: 3.82

- Relevant Coursework: Data Structures and Algorithms, Design and Analysis of Algorithms, Objects and Design, Systems and Networks, Object-Oriented Programming, Computer Organization and Programming
- Honors: Faculty Honors, Dean's List

EXPERIENCE

Georgia Tech School of Computing Instruction

Aug. 2024 - Present

Undergraduate Teaching Assistant

Atlanta, GA

- Instructed students in foundational computing concepts, including computer architecture, LC-3 Assembly, and C, leading a lab of 40+ students to complete hands-on activities in programming and circuit diagramming.
- Developed and reviewed assignments to evaluate learning, as well as comprehensive solutions for student tasks.
- Diagnosed and resolved student issues with circuit diagramming, Assembly programming, and boolean algebra.

Queen City Robotics Alliance

Jan. 2022 – Apr. 2023

 $Software\ Instruction\ Intern$

Charlotte, NC

- Spearheaded development and administration of a curriculum to teach block coding and basic computer-aided design through LEGO robotics to over 50 elementary-school aged children.
- Instructed 20+ students in basic block coding, Java, Python, and CAD, with 90% passing basic competency tests.
- Led a team of 20 instructors in preparing and teaching curriculum, organized into different subject areas.
- Delivered speeches to Charlotte-area professional organizations on behalf of QCRA, promoting the value of STEM education for K-12 students, boosting donations to the nonprofit by 31%.

Apple

July 2022 – Aug. 2022

Remote - Cupertino, CA

- Hardware Engineering Student
 - Worked closely with Apple engineers to create a confidential prototype, combining hardware, software, and electrical aspects. 1 of 29 students selected from 3000+ applicants.
 - Led a team of 6 fellow students to present our findings and proposed product to Apple's Senior Vice President of Hardware Engineering, as well as other executives and senior leadership.
 - Focused on software/computer engineering elements of the product, using Swift, SwiftUI, and CircuitPython.

Projects

Restaurant Reservation System

- Created a full-stack web application for creating, managing, and deleting customer reservations and orders across a network of restaurants with varied owners and food items.
- Backend built with Java, utilizing Javalin for lightweight API framework and robust error handling.
- Frontend constructed with HTML and CSS, using Pebble for uniform design and modularity.

4th and Long

- Developed a Game Boy Advanced football game in C and run with Make, where a player tries to score a touchdown against a team of defenders.
- Implemented pathing logic to have attacking NPCs dynamically follow the player's character.
- Utilized a variety of game, success, and failure screens to react depending on user input and game state.

C-SHell (csh)

- Developed a custom Unix shell in C, providing a Command-Line Interface for executing user commands.
- Supports execution of standard Unix commands as well as builtins such as cd, help, echo, etc.
- Implemented a loop to continuously prompt for user input, parse commands, and execute them appropriately.

TECHNICAL SKILLS

Programming Languages: C, Java, Python, Swift, SwiftUI, CircuitPython, LC-3 Assembly Developer Tools: Git, Github, Docker, Linux/Unix, GDB, VS Code, XCode, PyCharm, IntelliJ

Libraries and Frameworks: opency, Django, NumPy, Matplotlib, JavaFX

Other: Fusion 360, On Shape, Microsoft Excel, Video Editing